

**PROPOSED LAKESIDE INDUSTRIAL & ASSOCIATED
SERVICES PROJECT, STANGER, KWADUKUZA
LOCAL MUNICIPALITY, KWAZULU-NATAL**

Phase 1 Heritage Impact Assessment

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**FOR: Confluence Strategic Development & Environmental Partner
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EXECUTIVE SUMMARY

uShukela Milling (Pty) Ltd are the landowners of Farm Blythdale No. 17461 located within the KwaDukuza Local Municipality, iLembe District. The farm is 1 979.6 hectares in extent. The property is an active sugarcane farm and is zoned "Agriculture 1". The landowner is in the process of subdividing the farm. The western portion of the farm, close to Stanger has been identified as having high industrial value. Potential investors require the land to be zoned for industrial use prior to any further negotiations taking place. The intention is to rezone the portion of land where the industrial development is proposed to "General Industry". Two sites have been considered and will be assessed in the environmental authorisation process and in this study, namely; portion 3 of Farm Blythdale 17461 (alternative site 1 and portion 6 of the same farm (alternative site 2). Preliminary investigations have indicated that site 2 is the preferred site alternative. A new access road is proposed for site 2. The layout of the industrial platforms has not yet been determined and therefore a single 40-hectare platform will be assessed in the authorisation process.

It should be noted that it has been decided that alternative site 2 will be utilised for the proposed project.

The development footprint is 40 hectares (400000m²) hence the proposed development triggers section 41 (1) (c)(i), (ii) and (iii) of the KwaZulu-Natal Amafa and Research Institute Act, 2018 which lists developments or activities that require an HIA. The relevant sub-sections refer to any development or other activity which will change the character of a site- (i) exceeding 5000 m², (ii) involving three or more existing erven or subdivisions thereof and (iii) involving three or more erven or divisions thereof, which have been consolidated within the past five years.

The Lakeside industrial and associated services development is located between the N2 highway and the town of Stanger which forms part of the KwaDukuza Local Municipality.

A site inspection of the pipeline took place on 8 March 2022. Much of the two sites is under sugar cultivation but there was ready access to the sites.

Both sites were inspected on foot. Alternative site 1 was inspected first. It was here that the specialist spoke to the farm owner and farm manager. The farm manager told the specialist about a grave site located close to the R74 road and north of the project area. Whilst inspecting site 1, several labourers who were clearing access roads confirmed the farm manager's information of graves to the north of the project area. The very occasional stone tool was observed on the access roads but these were very few and far between with no surrounding context.

On the south-western boundary of the platform proposed for site 1 and within the boundary of overall area of site 1 are a set of concrete poles and a tall pole. It is unclear what it is used for but it is possibly to do with sugar cane cultivation. It is a fairly recent addition.

There are two homesteads/farmsteads on site 2. The built heritage specialist undertook a desktop assessment and concluded that the farmstead near the south-eastern boundary was built prior to 1937. As the farmstead is older than 60 years, it is a protected structure. During the inspection of site 2, solitary pieces of pottery were found on access roads to sugar cane fields. The finds were out of context with usually only a very few scattered pieces. There is an active borrow pit in the northwest corner of site 2.

It is proposed that a new access road be built between the R74 and site 2. Portions of this proposed road were inspected where access to the sugar cane fields would allow it. No heritage sites were found during the inspection.

The site of the graves near the R74 road were inspected. The graves are in a wooded and overgrown area and are no longer visible. The farm manager said that he was told that the graves are of Indian people who lived in Stanger and that the graves are very old. The site is located 30m east of the proposed access road to site 2.

According to the desktop palaeontological study, the northwest alternative site 1 is in the moderately fossiliferous Pietermaritzburg Formation while the southeast site, the preferred alternative site 2, is mostly on very highly sensitive shales of the Vryheid Formation. The Pietermaritzburg Formation was deposited in shallow to deep water conditions and only in the ancient shoreline facies would there be a chance of finding trace fossils such as worm burrows. The Vryheid Formation in some parts of the basin has coal seams and associated carbonaceous shales. There are no known coal deposits this far south in the Karoo Basin. Vryheid Formation fossils are typical of the *Glossopteris* flora and other plants such as lycopods and early conifers.

The desktop palaeontological study concluded that it is extremely unlikely that any fossils would be preserved in the covering soils and sands of the Quaternary. There is a small chance that fossils may occur below ground in the shales of the early Permian Vryheid Formation so a Fossil Chance Find Protocol should be added to the EMPr. There is an extremely small chance that fossils would occur in the Pietermaritzburg Formation. The impact on palaeontological heritage would be low so, as far as the palaeontology is concerned, the project should be authorised.

The Built Heritage Environment Impact Assessment Report of the two farmsteads on alternative site 2 states that the earliest aerial photographs of the area from 1937 indicate that the farmstead near the south-eastern boundary was built prior to 1937. This farmhouse has a hipped sheet roof with a single gable and veranda facing the garden. The house is built of brick, plastered and painted. It is raised above the ground with timber floorboards in the living rooms and bedrooms and concrete floors to bathrooms and kitchen. The internal doors and front door are timber framed that are typical of the 1930s period. The assessment stated that the farmhouse type is typical of the 1930s period that consisted of basic construction without any architectural detail and is of low significance and not-conservation-worthy. However, the structure falls under section 37 (1)(a) of the KwaZulu-Natal Amafa and Research Institute Act, 2018, which refers to the protection of structures that are or that may be reasonably expected to be older than 60 years, therefore a demolition permit from the Institute will be necessary in order to develop the site.

The second farmstead is not over 60 years old and is therefore not protected by the KZN Amafa Research and Institute Act, 2018

The old graves located close to the R74 road are protected terms of section 39 (1) of the KwaZulu-Natal Amafa and Research Institute Act, which states that graves or burial grounds older than 60 years or deemed to be of heritage significance by a heritage authority- (a) not otherwise protected by the above Act and (b) not located in a formal cemetery managed or administered by a local authority, may not be damaged, altered, exhumed, inundated, removed from its original position, or otherwise disturbed without the prior written approval of the Institute having been obtained on written application to the Institute. It is recommended that the graves are left *in-situ* and they are fenced to avoid damage to them during construction of the access road. It is recommended that from a heritage perspective, existing roads should be utilised instead the construction of a new road thereby avoiding further disturbance to the area.

From a heritage perspective, site 1 is the preferred site as no heritage sites were found on this site. Site 2 has protected structures on it and its new access road is located close to protected graves. In terms of the preferred site, the desktop palaeontological study stated that site alternative 1 is the preferred site whereas site 2 is not the preferred option as site 2 is more sensitive from a palaeontological perspective than site 1.

If site 2 is developed, then the mitigation measures included in this report as well as those in the built heritage report and in the desktop palaeontological report must be adhered to and implemented where necessary.

TABLE OF CONTENTS

EXECUTIVE SUMMARY	ii
TABLE OF CONTENTS	v
1. INTRODUCTION	8
2. LEGISLATIVE REQUIREMENTS	8
3. LOCATION	10
4. TERMS OF REFERENCE	10
5. METHODOLOGY AND CONSTRAINTS	10
6. HISTORICAL BACKGROUND OF PROJECT & SURROUNDING AREA	13
7. RESULT OF SITE INSPECTION	16
8. DISCUSSION AND CONCLUSION	30
9. MITIGATION MEASURES	31
10. REFERENCES	33

FIGURES

Figure 1: Lakeside development sites outlined in red with platforms indicated in yellow & white.....	11
Figure 2: Closer view of two sites.....	12
Figure 3: 1937 aerial photograph of project area	14
Figure 4: 1967 aerial image of project area	15
Figure 5: View across site 1 looking west.....	16
Figure 6: Labourers encountered on site 1	17
Figure 7: Site 1 looking northwards	17
Figure 8: Looking across site 1 towards the west	18
Figure 9: Looking east towards site 2.....	18
Figure 10: Looking towards residences on south-western boundary of site 1	19
Figure 11: Watercourse on site 1	19
Figure 12: Concrete bollards and tall pole	20
Figure 13: Homestead and associated buildings.....	21
Figure 14: Structures south of homestead.....	21
Figure 15: Northern homestead.....	22
Figure 16: Looking across site 2 towards N2 highway	22
Figure 17: Road to homestead	23
Figure 18: Engraved piece of pottery	23
Figure 19: Looking west towards lake	24
Figure 20: Active borrow pit.....	24
Figure 21: View across site 2 towards homestead.....	25
Figure 22: Proposed access road to site 2.....	26
Figure 23: Section of proposed road covered with sugar cane.....	27

Figure 24: Section of proposed road 27
Figure 25: Site of old graves 28
Figure 26: Heritage sites found on project sites 29

TABLES

Table 1: Heritage resources found during site inspection 28

APPENDICES

Appendix 1: Built heritage statement
Appendix 2: Built heritage environment heritage impact assessment
Appendix 3: Desktop palaeontological study

I, Jean 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.

SPECIALIST DETAILS

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

1. INTRODUCTION

uShukela Milling (Pty) Ltd are the landowners of Farm Blythdale No. 17461 located within the KwaDukuza Local Municipality, iLembe District. The farm is 1 979.6 hectares in extent and spans from KwaDukuza Town to the coastline. The property is an active sugarcane farm and is zoned "Agriculture 1". The landowner is in the process of subdividing the farm. The western portion of the farm, close to Stanger has been identified as having high industrial value. This is considering the surrounding land uses and proximity to the N2 highway. Potential investors require the land to be zoned for industrial use prior to any further negotiations taking place. The intention is to rezone the portion of land where the industrial development is proposed to "General Industry". Two sites have been considered and will be assessed in the environmental authorisation process and in this study, namely; Portion 3 of Farm Blythdale 17461 (alternative site 1 with platform outlined in yellow in **Fig. 1**) and Portion 6 of Farm Blythdale 17461 (alternative site 2 with platform indicated in white in **Fig. 1** located close to the N2 highway). Preliminary investigations have indicated that site 2 is the preferred site alternative. A new access road is proposed for site 2. The layout of the industrial platforms has not yet been determined and therefore a single 40-hectare platform will be assessed in the authorisation process (Confluence 2022:1).

It should be noted that, in the interim, it has been decided that Alternative Site 2 will be utilised for the proposed project.

On behalf of the landowner, Royal Shaka Property Group (Pty) Ltd will be applying for the environmental authorisation, which is required for the potential infilling of wetland areas associated with the development of the industrial platform, the excavation / infilling of watercourses at the new access road, water pipeline and sewer pipeline crossings and for the development of road and pipe infrastructure within 32m of watercourses (Confluence 2022:1).

A Phase 1 Heritage Impact Assessment (HIA) was undertaken to establish if heritage resources will be impacted by the proposed Lakeside industrial development.

2. LEGISLATIVE REQUIREMENTS

The development footprint is 40 hectares (400000m²) hence the proposed development triggers section 41 (1) (c)(i), (ii) and (iii) of the KwaZulu-Natal Amafa and Research Institute Act, 2018 (Act No 5 of 2018) which lists developments or activities that require an HIA. The relevant sub-sections refer to: any development or other activity which will change the character of a site- (i)

exceeding 5000 m², (ii) involving three or more existing erven or subdivisions thereof and (iii) involving three or more erven or divisions thereof, which have been consolidated within the past five years.

The development may also impact graves, 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 NHRA, heritage resources are:

- (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) 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).

3. LOCATION

The Lakeside industrial and associated services development is located between the N2 highway and the town of Stanger which forms part of the KwaDukuza Local Municipality. The two sites are located south of the R74 road and are adjacent to one another (**Figs. 1 and 2**).

4. TERMS OF REFERENCE

Undertake a Phase 1 Heritage Impact Assessment in order to determine the possible existence of heritage resources that could be impacted by the Lakeside industrial development. In addition, provide mitigation measures to limit or avoid the impact of the proposed project on heritage resources (if any).

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

5. METHODOLOGY AND CONSTRAINTS

A survey of literature, including other heritage impact assessment 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.

A site inspection of the pipeline took place on 8 March 2022. Much of the two sites is under sugar cultivation but there was access to the sites. The specialist spoke to the owner and the manager of the farm, namely, Robbie Couve and Siphelele Mfeka. The specialist also spoke to several workers who were clearing vegetation from the rows of sugar cane.



Figure 1: Lakeside development sites outlined in red with platforms indicated in yellow & white



Figure 2: Closer view of two sites

6. HISTORICAL BACKGROUND OF PROJECT & SURROUNDING AREA

According to Prins (2020:3), the greater Stanger/KwaDuluza area, has been relatively well surveyed for heritage sites. The available evidence indicates that the wider surrounding area contains a wide spectrum of heritage sites covering different time-periods and cultural traditions.

Around 1 700 years ago an initial wave of Early Iron Age People settled along the inland foot of the sand dunes on sandy but humus rich soils which would have ensured good crops for the first year or two after they had been cleared. These early agro-pastoralists produced a characteristic pottery style known as Matola. The Matola people also exploited the wild plant and animal resources of the forest and adjacent sea-shore. By 1 500 years ago another wave of Iron Age migrants entered the area. Their distinct ceramic pottery is classified to styles known as “Msuluzi” (AD 500-700), Ndongondwane (AD 700-800) and Ntshekane (AD 800-900). Three sites belonging to these periods occur along the banks of the Tugela River, approximately 30m to the north of the project area (Prins 2020:3-4).

The greater KwaDukuza area is also associated with Zulu King Shaka in the early 1820’s. It is at Stanger where King Shaka had his capital, KwaDukuza, and it was here that he was murdered by his half-brothers Dingane and Mhlangane. The exact spot of Shaka’s death is thought to be where an old mahogany tree is located in the grounds of the Stanger/KwaDukuza municipal offices. The grain pit where Dingane is thought to have secretly buried Shaka is marked by a large rock in the King Shaka Memorial Garden in the town. In Stanger, near King Shaka’s memorial, is a small river known as Shaka’s spring. From here, unpolluted water was collected for the King’s use. Nearby on the Imbozamo River, was Shaka’s bathing pool and cave where he would rest after swimming. Not much further off is the famous Execution Cliff where executions were carried out (Prins 2020:4). These sites are located to the west and north of the project area.

The town of Stanger was founded in 1873, proclaimed a township in 1920 and became a municipality in 1949. The town was named after William Stanger (1811-1854), the first Surveyor-General of Natal (Raper undated:415). The first sugar mill built in KwaZulu-Natal, Gledhow Mill, by C.G.Smith in 1880 is situated a short distance from both sites.

The 1937 aerial photograph shows the project area with the railway line to the west of the project area as well as several structures, and roads. By 1967, the structures visible in the 1937 image have disappeared and a labourer’s compound is visible on site 1. In both images, the farmstead on alternative site 2 is visible.



Figure 3: 1937 aerial photograph of project area



Figure 4: 1967 aerial image of project area

7. RESULT OF SITE INSPECTION

Both sites were inspected on foot where possible as dense sugar cane fields cover both sites. Alternative site 1 was inspected first. It was here that the specialist spoke to the farm owner and farm manager. The farm manager told the specialist about a grave site located close to the R74 road and north of the project area.

Whilst inspecting site 1, several labourers who were clearing access roads of vegetation confirmed the farm manager's information of graves to the north of the project area. The occasional stone tool was observed on the access roads but these were very few and far between with no surrounding context and therefore of no heritage significance.



Figure 5: View across site 1 looking west



Figure 6: Labourers encountered on site 1



Figure 7: Site 1 looking northwards



Figure 8: Looking across site 1 towards the west

A tarred road bisects site 1. **Figs. 9 - 12** are photographs of the south-western section of site 1.



Figure 9: Looking east towards site 2



Figure 10: Looking towards residences on south-western boundary of site 1



Figure 11: Watercourse on site 1

On the south-western boundary of the platform proposed for site 1 and within the boundary of overall area of site 1 are a set of concrete poles and a tall pole. It is unclear what this is but it is possibly to do with sugar cane cultivation. It is a fairly recent addition.



Figure 12: Concrete bollards and tall pole

Site alternative 2 was also inspected on foot. There are two homesteads/farmsteads on site 2. A built heritage specialist undertook a desktop assessment (**Appendix 1**) and concluded that the farmstead near the south-eastern boundary was built prior to 1937 and was most likely built by an early sugar farmer. As the farmstead is older than 60 years, it is a protected structure (Napier 2022:1).

During the site inspection for this report, both farmsteads could not be accessed due to security fencing around them.



Figure 13: Homestead and associated buildings



Figure 14: Structures south of homestead



Figure 15: Northern homestead

The eastern boundary of the site 2 abuts the N2 highway and as with site 1, site 2 is currently used for sugar cane farming.



Figure 16: Looking across site 2 towards N2 highway



Figure 17: Road to homestead

During the inspection, solitary pieces of pottery were found on access roads to the sugar cane fields. The finds were out of context with usually only a very few scattered pieces therefore of no heritage significance.



Figure 18: Engraved piece of pottery



Figure 19: Looking west towards lake

There is an active borrow pit in the northwest corner of site 2. The area is very disturbed.



Figure 20: Active borrow pit



Figure 21: View across site 2 towards homestead

It is proposed that a new access road be built between the R74 and site 2. The proposed road is visible as the white line on **Fig. 22** below. The road was inspected where access to the sugar cane fields would allow it. No heritage sites were found during the inspection.



Figure 22: Proposed access road to site 2



Figure 23: Section of proposed road covered with sugar cane



Figure 24: Section of proposed road

The farm manager took the specialist to the site of the graves near the R74 road. The graves are in a wooded and overgrown area and are no longer visible. He said that he was told that the graves are of Indian people who lived in Stanger and that the graves are very old. The site is located 30m east of the proposed access road to site 2.



Figure 25: Site of old graves

Table 1: Heritage resources found during site inspection

Description	Coordinates	Significance	Mitigation
Site of old graves	29°20'37.1" S 31°19'09.4" E	High heritage significance	If the proposed access road is constructed, then a 15m buffer must be placed around the grave site to avoid any damage during construction
Pottery sherds	29°21'11.31"S 31°17'58.50"E	Low heritage significance – scattered pieces of pottery with no surrounding context	None required as site is not to be developed
Single pottery sherd	29°21'26.10"S 31°18'25.50"E	Low heritage significance as no surrounding context or other remains	None required; can be destroyed
Structures < 60 years	29°21'26.95"S 31°18'29.01"E	Low heritage significance	Can be altered or demolished without application to the Institute
Structures >60 years	29°21'37.31"S 31°18'29.58"E	Low heritage significance	Written application for demolition must be made to the Institute

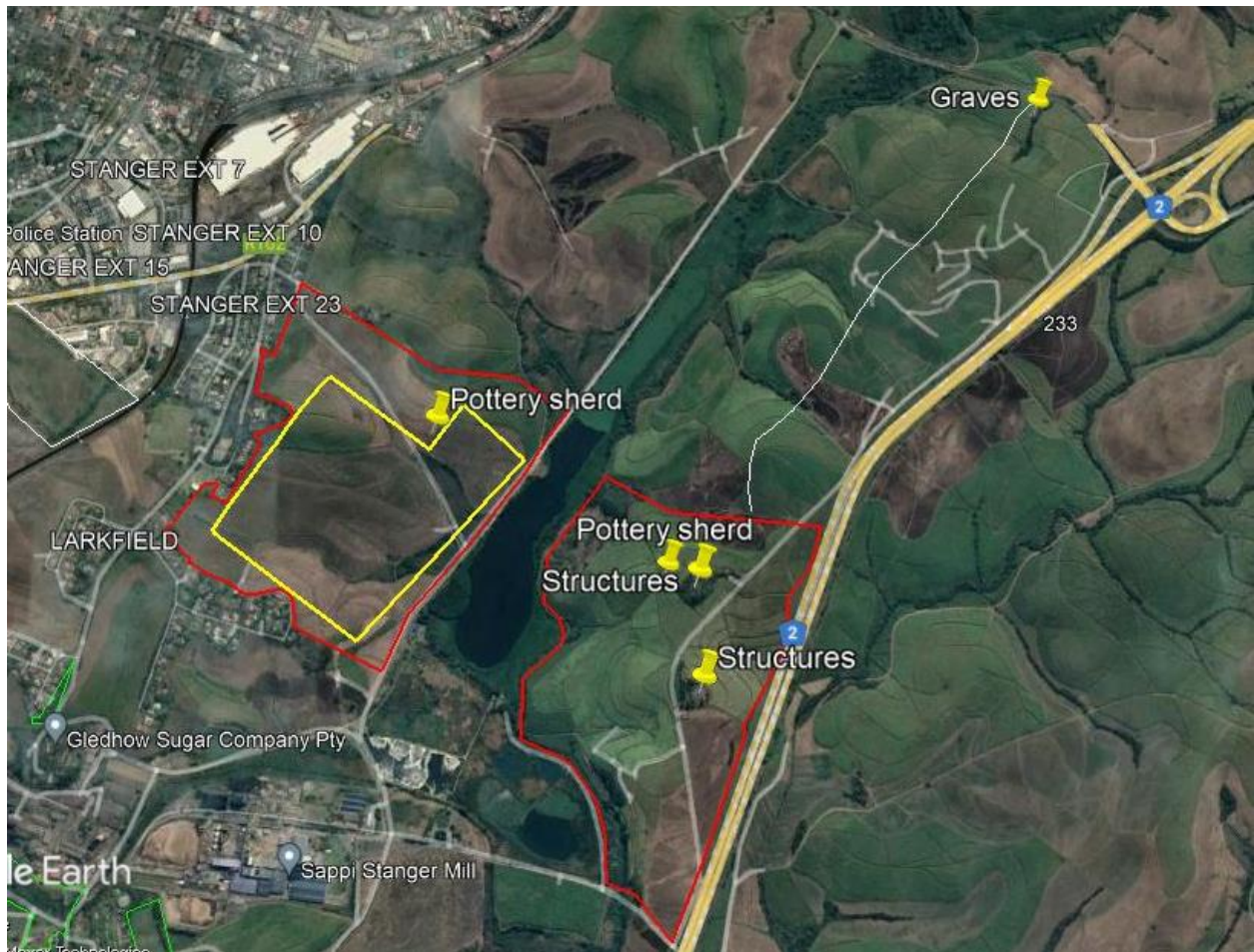


Figure 26: Heritage sites found on project sites

According to the desktop palaeontological study (**Appendix 3**) undertaken for the project, the northwest alternative site 1 is in the moderately fossiliferous Pietermaritzburg Formation while the southeast site, the preferred alternative site 2, is mostly on very highly sensitive shales of the Vryheid Formation (Bamford 2022:9).

The Pietermaritzburg Formation was deposited in shallow to deep water conditions and only in the ancient shoreline facies would there be a chance of finding trace fossils such as worm burrows. The Vryheid Formation in some parts of the basin has coal seams and associated carbonaceous shales. There are no known coal deposits this far south in the Karoo Basin although there is an abandoned mine to the north of the project area. Vryheid Formation fossils are typical of the *Glossopteris* flora and include other plants such as lycopods, sphenophytes, ferns and early conifers. Vertebrates were not common at this time and moreover they require different conditions for preservation from those required by plants. Recent alluvium along the watercourses would not preserve fossils. The palaeontologist stated that the area has been cultivated for sugarcane for decades and no fossils would be present in the soils (Bamford 2022:9-10).

The study concluded that it is extremely unlikely that any fossils would be preserved in the covering soils and sands of the Quaternary. There is a small chance that fossils may occur below ground in the shales of the early Permian Vryheid Formation so a Fossil Chance Find Protocol should be added to the Environmental Management Programme (EMPr). There is an extremely small chance that fossils would occur in the Pietermaritzburg Formation. The impact on the palaeontological heritage would be low so, as far as the palaeontology is concerned, the project should be authorised (Bamford 2022:12).

The Built Heritage Environment Impact Assessment Report of the two farmsteads on alternative site 2 (**Appendix 2**) states that the earliest aerial photographs of the area from 1937 indicate that the farmstead near the south-eastern boundary was built prior to 1937. This farmhouse has a hipped sheet roof (asbestos) with a single gable and veranda facing the garden. The house is built of brick, plastered and painted. It is raised above the ground with timber floorboards in the living rooms and bedrooms and concrete floors to bathrooms and kitchen. The internal doors and front door are timber framed that are typical of the 1930s period. The farmhouse type is typical of the 1930s period that consisted of basic construction without any architectural detail and is of low significance and not-conservation-worthy, however, a demolition permit from the Institute will be necessary in order to develop the site. (Napier 2022:8, 11).

The second farmstead is not over 60 years old and is therefore not protected by the KZN Amafa Research and Institute Act, 2018 (Napier 2022:11).

8. DISCUSSION AND CONCLUSION

Both sites, sites 1 and 2, were inspected on foot. A homestead on site 2 is visible in the 1937 aerial photograph of the site. According to the built heritage specialist reports, the farmstead near the south-eastern boundary of site 2 is a protected structure hence it is protected by section 37 (1)(a) of the KwaZulu-Natal Amafa and Research Institute Act, 2018, which refers to the protection of structures that are or that may reasonably be expected to be older than 60 years.

The old graves pointed out to the specialist are located close to the R74 road and to the proposed new access road to site 2. Graves are protected terms of section 39 (1) of the KwaZulu-Natal Amafa and Research Institute Act, which states that graves or burial grounds older than 60 years or deemed to be of heritage significance by a heritage authority- (a) not otherwise protected by the above Act and (b) not located in a formal cemetery managed or administered by a local

authority, may not be damaged, altered, exhumed, inundated, removed from its original position, or otherwise disturbed without the prior written approval of the Institute having been obtained on written application to the Institute. It is recommended that the graves are left *in-situ* and they are fenced to avoid damage to them during construction of the access road. It is recommended that from a heritage perspective that existing roads be utilised as access to the sites thereby avoiding further disturbance to the area.

Single individual pottery sherds were found on the sites. The remains are ephemeral and without context and have a low to negligible heritage significance.

From a heritage perspective, site 1 is the preferred site as no heritage sites were found on this site. Site 2 has protected structures on it and its new access road is located 30m west of protected graves.

In terms of the preferred site, the desktop palaeontological study states that site alternative 1 is the preferred site whereas site 2 between the lake and N2 is not the preferred option as site 2 is more sensitive from a palaeontological perspective than site 1.

If site 2 is developed, then the mitigation measures included in this report as well as those in the built heritage report and in the desktop palaeontological report must be adhered to and implemented where necessary.

9. MITIGATION MEASURES

- For any chance heritage finds, all work must cease in the area affected and the Applicant / Contractor must be immediately informed. A registered heritage specialist must be called to site to inspect the finding/s. The Institute 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 the Institute 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 as well as the Institute must be contacted. No SAPS official may remove remains (recent or not) until the correct permit/s have been obtained.

- If fossils are found by the developer, contractor, environmental officer, or other responsible person once excavations for amenities, roads and foundations have commenced then they should be rescued and a palaeontologist called to assess and collect a representative sample.
- All recommendations and mitigation measures provided in the desktop palaeontological study must be adhered to such as the inclusion of the fossil chance find protocol into the EMPr.

10. REFERENCES

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