

**KHUBA SECONDARY SCHOOL, NKANDLA LOCAL
MUNICIPALITY, KWAZULU-NATAL**

Phase 1 Heritage Impact Assessment

March 2022

**FOR: NCC Environmental Services (Pty) Ltd
Nick Gates**

**AUTHOR: JLB Consulting
Jean Beater**

EXECUTIVE SUMMARY

The Department of Education - King Cetshwayo District proposes the construction of Khuba Secondary School that will be situated within the Nkandla Local Municipality. The total area for school buildings/structures of 2 421m². In addition, there will be a hardened combi court, one netball field and one large soccer field.

The combined footprint of the school and associated infrastructure is 9680.25 m² hence it triggers section 41 (1) (c)(i) of the KwaZulu-Natal Amafa and Research Institute Act, 2018 which lists developments or activities that require an HIA. The relevant sub-section refers to any development or other activity which will change the character of a site- (i) exceeding 5000 m².

The proposed school is located about 11km north of the town of Nkandla and in the area of Nkungumathe. The school will be located between the Nkungumathe Primary School on its north eastern boundary and a homestead on its south-western boundary. The school is to be built on the Farm Reserve No. 19 15839.

An inspection of the site was undertaken on 24 February 2022. An additional 30m of area beyond the project boundary was inspected. The specialist spoke to several residents living close to the proposed school who indicated that there were no heritage sites on the project area.

The entire site was inspected on foot. The grass cover was fairly thick but visibility was good. There is evidence of previous cultivation of the area with terracing still visible. Paths cross the site as well as a road on the northern boundary of the proposed site. No heritage resources were found during the site inspection.

The South African fossil sensitivity map indicates that the project site falls into an area of moderate fossil sensitivity which requires a desktop palaeontological study. The study found that the project lies in the Nkandla Basin, on the southern margin of the Main Pongola Basin. The rocks are old and metamorphosed igneous rocks that do not contain any fossils. Overlying the basement rocks are much younger sediments of the lower Karoo Supergroup, the Dwyka Group. The study found that the geological structures suggest that the rocks are either much too old to contain fossils or the right age for early terrestrial plants and invertebrates. Since there is an extremely small chance that fossils from the Dwyka Group may be disturbed, a Fossil Chance Find Protocol must be included in the EMPr for the construction of the school. It was concluded that the potential impact to fossil heritage resources would be very low.

During the site inspection, no heritage sites were found. The surrounding area has several heritage sites including graves located 1km north of the project area in the denser populated area of Nkungumathe as well as the site of the workplace of the herbalist Boma who, according to oral evidence, provided medicine to doctor Shaka's troops which is situated over 400m south-west of the project area. These sites will not be impacted by the construction of the school.

The construction of Khuba Secondary School may proceed as long as the recommendations and mitigation measures provided in this report and in the desktop palaeontological report are adhered to and implemented where necessary.

TABLE OF CONTENTS

EXECUTIVE SUMMARY	ii
TABLE OF CONTENTS	iv
1. INTRODUCTION	6
2. LEGISLATIVE BACKGROUND	6
3. LOCATION	7
4. TERMS OF REFERENCE	7
5. METHODOLOGY	9
6. HISTORICAL BACKGROUND OF AREA	11
7. RESULT OF SITE INSPECTION	13
8. DISCUSSION AND CONCLUSION	17
9. MITIGATION MEASURES	17
10. REFERENCES	19

FIGURES

Figure 1: Surrounding area with project area shaded in pink.....	8
Figure 2: Closer view of project area outlined in blue	9
Figure 3: Layout of proposed school	10
Figure 4: 1943 aerial image of project area and surroundings with site outlined in red.....	12
Figure 5: Aerial image of project area (outlined in orange) and surroundings.....	13
Figure 6: View northwards over project site towards existing school	14
Figure 7: View across project site in a south-westerly direction	14
Figure 8: View southwards towards homestead on boundary of site	15
Figure 9: Remains of terracing used when site was cultivated	15
Figure 10: Area of disturbance near northern boundary of site	16
Figure 11: Eastern boundary of project site.....	16

APPENDIX 1**Desktop palaeontological study**

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.

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 IAIAAs (No. 1538)

1. INTRODUCTION

The Department of Education - King Cetshwayo District has proposed the construction of the Khuba Secondary School that will be situated within the Nkandla Local Municipality. The total area for school buildings/structures of 2 421m². In addition, there will be a hardened combi court, one netball field and one large soccer field.

The Phase 1 Heritage Impact Assessment (HIA) was undertaken to establish if any heritage resources would be impacted by the proposed construction of the school.

2. LEGISLATIVE BACKGROUND

The combined footprint of the school and associated infrastructure is 9680.25 m² 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 require an HIA. The relevant sub-section refers to any development or other activity which will change the character of a site- (i) exceeding 5000 m².

The project 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 National Heritage Resources Act 1999 (Act No 25 of 199), 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 proposed school is located about 11km north of the town of Nkandla and in the area of Nkungumathe (see **Figure 1**). The school will be located between the Nkungumathe Primary School on its north eastern boundary and a homestead on its south-western boundary (see **Figure 2**). The school is to be built on the Farm Reserve No. 19 15839. The centre point of the site is 28°31'19.6" S; 31°05'14.3" E.

The proposed layout of the school is provided in **Figure 3** below.

4. TERMS OF REFERENCE

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

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



Figure 1: Surrounding area with project area shaded in pink



Figure 2: Closer view of project area outlined in blue

5. METHODOLOGY

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.

An inspection of the site was undertaken on 24 February 2022. The grass cover was fairly thick but visibility was good. An additional 30m of area beyond the project boundary was inspected. The specialist spoke to several residents living close to the proposed school including Induna Vakasheia Mahaye and Mrs. Ngema who lives in the homestead north of the project site and Mrs Nelisiwe Sikhakhane who lives on the opposite side of the gravel road. They all said that there were no heritage sites on the proposed school site.



Figure 3: Layout of proposed school

6. HISTORICAL BACKGROUND OF AREA

Early Iron Age (EIA) farmers in south-eastern South Africa typically established small, permanent villages on the rich alluvial soils beside lakes and rivers. Most EIA sites were occupied for a relatively long duration of time, often several hundred years, with the reoccupation of the same places creating flat, expansive settlements. Ndongondwane is typical of such sites. It is located on a relatively flat expanse of the northern bank of the lower Thukela River on deep well-drained red soils that predominate along the riverbanks and foot-slopes where other EIA sites are found (van Schalkwyk 2015:20). Ndongondwane is situated roughly 40km south-west of the site for the proposed school.

Evidence of for socio political organization during the mid-eighteenth to early nineteenth century in the larger area and in the province suggest that people existed in numerous small-scale political units of different sizes, population numbers and political structures. This period was largely characterised by instability as skirmishes occurred for power and resources between chiefdoms. In the 1780's there was a shift towards a more centralized political state which occurred mainly because of population growth and geographical expansion. The most important, largest and strongest states at the time were the Mabhudu, Ndwandwe and Mthethwa. However, other smaller states, also established themselves in the greater Tugela Region. The Zulu kingdom, established by King Shaka, however remained the most powerful in the region in the early years of the 19th century. When Shaka was assassinated in 1828, he had transformed the nature of society in the province (Prins 2013:6).

Over 400m south-west of the project area is a site which is described as the herbalist Boma's workplace who is celebrated annually by the Skakane clan. Boma was a famous herbalist apparently of Shaka's time. The site (when it was first recorded) was made up of bushy vegetation and prickly pear plants in a clump about 5m in diameter. A rare species of tree is said to have grown here. The local name is Ihlahla skamboma and the name of the area is Mshisandlu (the burning of the house). According to oral tradition, this is the site where Nyanga Boma Shakane prepared medicines to doctor Shaka's forces from 1816 to 1828 (KwaZulu-Natal Museum 1988:1).

The 1965 topographic map (2831CA) of the project area and surroundings shows a largely uninhabited area, the tar road to Nkandla and the project area under cultivation, the terraces of which are still faintly visible.

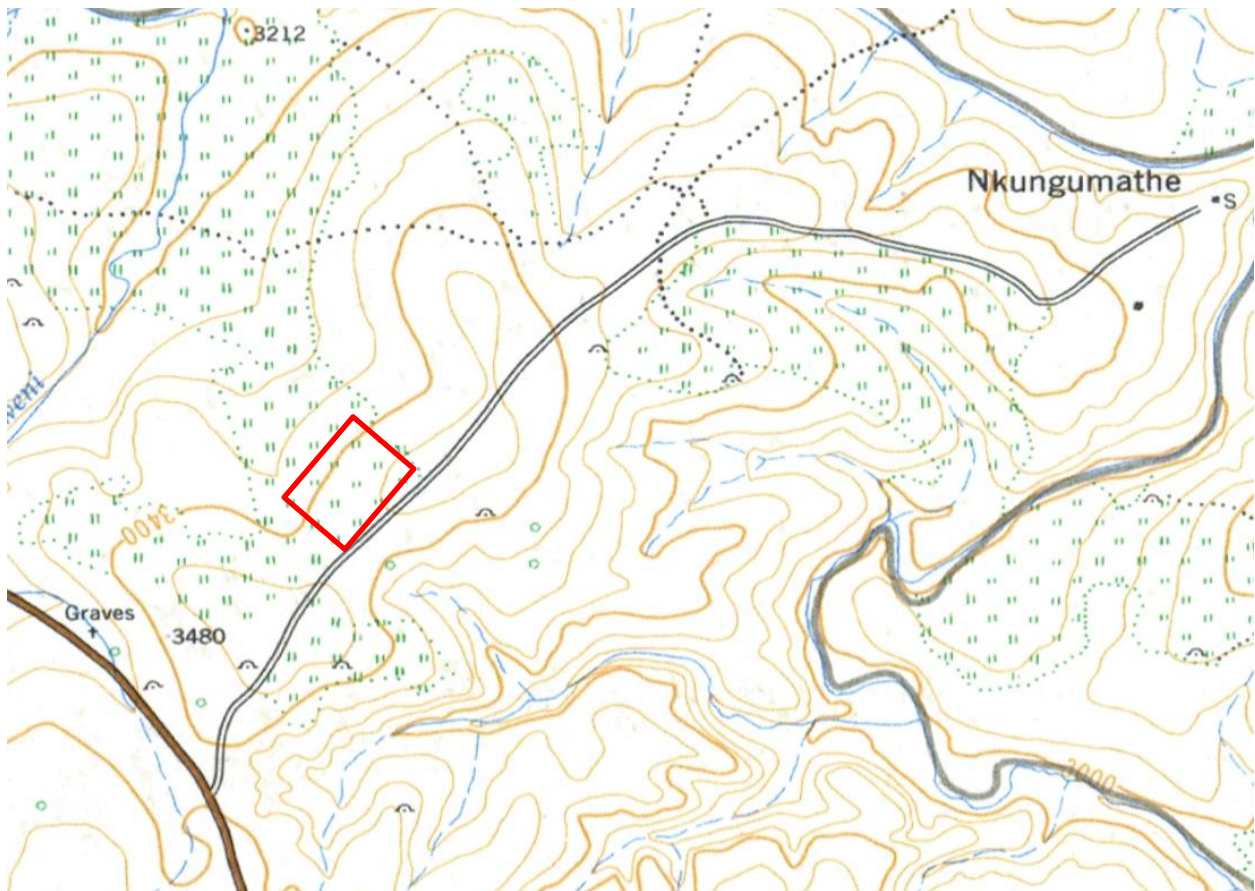


Figure 4: 1943 aerial image of project area and surroundings with site outlined in red

The 1975 aerial photograph of the project area and surroundings indicates a project area that is devoid of habitation with paths crossing it. The site in 1975 does not appear to be used for cultivation but the 2009 topographic map shows the entire area under cultivation.



Figure 5: Aerial image of project area (outlined in orange) and surroundings

7. RESULT OF SITE INSPECTION

The entire site was inspected on foot. The grass cover was fairly thick but visibility was good. There is evidence of previous cultivation of the area with terracing still visible. Paths cross the site as well as a road on the northern boundary of the proposed site. No heritage resources were found during the site inspection.



Figure 6: View northwards over project site towards existing school



Figure 7: View across project site in a south-westerly direction



Figure 8: View southwards towards homestead on boundary of site



Figure 9: Remains of terracing used when site was cultivated

During the inspection, a small area of disturbance was found that could not be explained. The photograph below is of the area. Those spoken to did not know anything about the site.



Figure 10: Area of disturbance near northern boundary of site



Figure 11: Eastern boundary of project site

The South African fossil sensitivity map indicates that the project site falls into an area of moderate fossil sensitivity which requires a desktop palaeontological study. Such a study was undertaken which found that the project lies in the Nkandla Basin, on the southern margin of the Main Pongola Basin. The rocks here are granites, basalts, phyllite, harzburgite, gabbro and pyroxenes of the Pongola Supergroup. Such old and metamorphosed igneous rocks do not contain any fossils. Overlying the basement rocks are much younger sediments of the lower Karoo Supergroup, the Dwyka Group (Bamford 2022:8).

The study found that the geological structures suggest that the rocks are either much too old to contain fossils or the right age for early terrestrial plants and invertebrates. Since there is an extremely small chance that fossils from the Dwyka Group may be disturbed, a Fossil Chance Find Protocol (as provided in the study) must be included in the Environmental Management Programme (EMPr) for the construction of the school. It was concluded that the potential impact to fossil heritage resources would be very low (Bamford 2022:11).

8. DISCUSSION AND CONCLUSION

During the site inspection, no heritage sites were found. The surrounding area has several heritage sites including graves located 1km north of the project area in the denser populated area of Nkungumathe (Anderson 2018) as well as the site of the workplace of the herbalist Boma as described above. These sites will not be impacted by the construction of the school.

The construction of Khuba Secondary School may proceed as long as the recommendations and mitigation measures provided in this report and in the desktop palaeontological report are adhered to and implemented where necessary.

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 heritage specialist must be called to site to inspect the finding/s. The relevant heritage resource agency (the Institute) must be informed about the finding/s.
- The specialist will assess the significance of the resource/s 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 the project 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.
- The Fossil Chance Find Protocol must be included in the EMPr for the proposed construction of the school.

10. REFERENCES

Anderson, G. 2018. *Heritage survey of the proposed Nkungumathe irrigation scheme*

Bamford, M. 2022. *Palaeontological Impact Assessment for the proposed Khuba Secondary School, Nkandla Local Municipality, KwaZulu Natal Province. Desktop study (Phase 1)*

Natal Museum Archaeology Department. 2831CA 012. *Site recording: Bantu Reserve No 19 7638: Boma's Tree*

Prins, F. 2013. *Cultural Heritage Impact Assessment of the proposed Ngomankulu / Nsuze bridge, Ward 11, Nkandla Municipality*

Wahl, E. and van Schalkwyk, L. 2015. *Phase 1 Heritage Impact Assessment Report: Nkandla Bulk Infrastructure Project, Nkandla Local Municipality, King Cetshwayo District, KwaZulu-Natal*