

**PROPOSED UPGRADE OF D1095 DISTRICT ROAD,
RAY NKONYENI MUNICIPALITY, KWAZULU-NATAL**

Phase 1 Heritage Impact Assessment

July 2017

FOR: ECA CONSULTING

Rineshia Naidoo / Manogrie Chetty

**Author: Jean Beater
JLB Consulting**

EXECUTIVE SUMMARY

The KwaZulu-Natal Department of Transport proposes to upgrade a section of district road D1095 from an existing gravel surface to a black top road. The Department also plans to widen the road by 1.5 m and upgrade three water crossings with the construction of two culverts and the installation of a concrete pipe. This report is the Phase 1 Heritage Impact Assessment (HIA) for the proposed upgrade.

The length of road to be upgraded is approximately 3 km hence it triggers Section 38 (1) (a) of the National Heritage Resources Act, 1999 (Act No 25 of 1999) which refers to the construction of a road, wall, power line, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length. The project may also impact on graves, structures, archaeological and palaeontological resources that are protected in terms of sections 33, 34, 35, and 36 of the KwaZulu-Natal Heritage Act (No. 4 of 2008) as well as sections 34, 35, and 36 of the National Heritage Resources Act (NHRA).

District road 1095 is situated inland of the coastal town of Southbroom in the Ray Nkonyeni Local Municipality. It is situated in close proximity to the rural communities of Nyanisweni, Ngodini and Gamthilini. An inspection / survey of the section of the road to be upgraded was undertaken on 27 June 2017.

District road 1095 services various residential areas and homes along its length. It crosses a number of watercourses, three of which will be upgraded. Along its length are residences, cultivated lands and natural grassland. A power line passes through the area as well as a water pipeline. At least two areas along the road appear to have been used as borrow pits for road construction and maintenance.

The area where culvert 1 will be constructed was inspected. The existing culvert or structure used to convey the watercourse has been damaged. No heritage sites were found close to or in the surrounding area of the existing crossing. The watercourse crossing for culvert 2 is situated not far from culvert 1. A small dam is situated close to the crossing. No heritage resources were found close to the proposed culvert or in the surrounding area. The proposed concrete pipe / culvert 3 will be installed where the D1095 road crosses a river. There is an existing water pipeline along its length and thick vegetation along the river banks. No heritage sites were found in or along the river crossing and adjacent area.

A number of graves were found along the length of the section of the D1095 to be upgraded. Most of the grave sites are situated well away from the proposed increase in size of the road.

However, two grave sites are located in close proximity of the D1095 and could be impacted by the proposed upgrade. The first grave site, consisting of two graves, is situated at: 30°53'03.20"S; 30°11'11.21"E. The two graves are marked with headstones but with no inscription thereon. The graves are situated within the proposed 1.5 m widening of the road. It is recommended that the widening of the road take place on the other side of the road where there is a stand of gum trees to avoid impacting on the graves. The other grave is most probably situated outside the 1.5 m required for the widening of the road; however, it is close enough to possibly be impacted by activities associated with the upgrade. The grave is situated at: 30°53'11.20"S; 30°11'06.31"E. It is recommended that a buffer is placed around the above-mentioned graves during the construction phase so that they are not impacted by these activities.

Several other graves were identified during the site inspection. All were situated well away from the road and should not be impacted by the proposed upgrade. It is strongly recommended that graves are not moved. Graves are highly significant to many people and there are many traditional, cultural and personal sensitivities concerning the removal of graves. It is recommended that the identified graves should be fenced off and left *in situ*. A buffer of 2m is recommended around the grave/s to avoid damage to them during construction.

The South African Fossil Sensitivity Map indicated that the project area is situated in an area of low fossil sensitivity. This means that no additional studies were required but that a protocol must be in place in the event of chance finds of fossils during the upgrade of the road. This protocol is included in Chapter 10 of this report.

Some grave sites were found that could be impacted by the proposed road upgrade. Damage to these heritage resources can be avoided as long as the recommendations and mitigation measures provided in this report are adhered to. If this is done, then from a heritage perspective, the proposed upgrade of the D1095 district road can proceed.

TABLE OF CONTENTS

EXECUTIVE SUMMARY	ii
TABLE OF CONTENTS	iv
AUTHOR DETAILS	v
1. INTRODUCTION	6
2. LEGISLATIVE BACKGROUND	6
3. LOCATION	7
4. TERMS OF REFERENCE	8
5. METHODOLOGY	9
6. HISTORICAL BACKGROUND OF THE STUDY AREA	9
7. RESULT OF SITE INSPECTION	10
8. DISCUSSION AND RECOMMENDATIONS	17
9. CONCLUSION	18
10. MITIGATION MEASURES	18
11. REFERENCES	20

FIGURES

Figure 1: Project area	8
Figure 2: Start of D1095 road	11
Figure 3: Residences close to D1095	11
Figure 4: Existing infrastructure crossing D1095	12
Figure 5: Culvert 1	12
Figure 6: Culvert 2	13
Figure 7: Concrete pipe / culvert 3	13
Figure 8: Water pipeline and thick vegetation in background	14
Figure 9: Graves situated close to D1095	14
Figure 10: Recent grave	15
Figure 11: Fossil sensitivity of project area (indicated in blue oval)	16

AUTHOR DETAILS

Verification	Name	Qualification	Professional Registration
Author	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

The KwaZulu-Natal Department of Transport proposes to upgrade a section of district road D1095 from an existing gravel surface to a black top road. The Department also wants to widen the road by 1.5 m and upgrade three water crossings with the construction of two culverts and the installation of a concrete pipe.

This report is the Phase 1 Heritage Impact Assessment (HIA) for the proposed upgrade of district road D1095.

2. LEGISLATIVE BACKGROUND

The length of road to be upgraded is approximately 3 km hence it triggers Section 38 (1) (a) of the National Heritage Resources Act, 1999 (Act No 25 of 1999) that states the following:

“(1) Subject to the provisions of subsections (7), (8) and (9), any person who intends to undertake a development categorised as—

(a) the construction of a road, wall, power line, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length;

must notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development.

In addition, the project may impact on graves, structures, archaeological and palaeontological resources that are protected in terms of sections 33, 34, 35, and 36 of the KwaZulu-Natal Heritage Act (No. 4 of 2008) as well as sections 34, 35, and 36 of the National Heritage Resources Act (NHRA).

In terms of Section 3 of the National Heritage Act 25 of 1999, 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) 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 will be undertaken to assess whether any heritage resources will be impacted by the proposed upgrade of the D1095 road.

3. LOCATION

District road 1095 is situated inland of the coastal town of Southbroom in the Ray Nkonyeni Local Municipality. It is situated in close proximity to the rural communities of Nyanisweni, Ngodini and Gamthilini.

The start of the upgrade is at 30°52'21.02"S; 30°11'17.25"E and ends at 30°53'34.38"S; 30°11'07.48"E. The upgrade of watercourse crossings will be at:

Culvert 1 = 30°52'32.23"S; 30°11'06.64"E;

Culvert 2 = 30°52'34.79"S; 30°11'04.16"E; and

Concrete pipe = 30°52'54.96"S; 30°11'07.85"E.



Figure 1: Project area

4. TERMS OF REFERENCE

Undertake a Phase 1 Heritage Impact Assessment in order to determine the possible existence of heritage resources, as listed above, in the project area that could be impacted by the proposed upgrade of the D1095 road.

Provide mitigation measures to limit or avoid the impact of the construction of the project on heritage resources (if any).

Submit the HIA report to the provincial heritage resources authority, Amafa aKwaZulu-Natali (Amafa), for their assessment and comment.

5. METHODOLOGY

A survey of literature, including other Heritage/Archaeological Impact Assessment Reports completed in the area and captured on the SAHRA database, namely SAHRIS, was undertaken in order to place the development area in an archaeological and historical context.

An inspection / survey of the section of the D1095 to be upgraded was undertaken on 27 June 2017. In general, visibility was good. There were a few sections of the road where the verge of the road and areas adjacent to the road was covered with thick vegetation.

The specialist also spoke to a number of residents (including Njabulo Zulu and Eric Ngubane) regarding the presence of heritage resources close to / along the D1095 road.

6. HISTORICAL BACKGROUND OF THE STUDY AREA

Recent field-work has suggested that in southern Natal during the last 3 500 years, hunter-gatherers would have occupied the Drakensberg in spring and summer, the coastal zone in winter, and the midlands of KwaZulu-Natal in autumn and late winter. This seasonal hypothesis has given rise to the speculation that while they were in the Drakensberg, the hunter-gatherers would have lived in large groups and would have operated from large home-base sites whilst in the coastal zones groups smaller sites would have been found (eThembeni 2008: 16).

The advent of the Iron Age saw the introduction of metallurgy as well as the introduction of agriculture, necessitating a more settled village way of life instead of the nomadic patterns of the Stone Age. It also provided for an increase in population density, as well as a more complex life-style. Richly decorated pottery is a hallmark of these early settlements. The earliest Iron Age sites in South Africa, including KwaZulu-Natal, relate to an eastern coastal and lowland cultural tradition with links as far north as the Kwale sites of eastern Kenya. This tradition has been named 'Matola', after a site in southern Mozambique (eThembeni 2008:16).

With the beginning of the Late Iron Age, settlements were no longer located in river valleys, but were built on higher ground where homesteads would benefit from cooling breezes and good views for strategic purposes. Wetlands and marshy areas were used for grazing domestic animals and gathering wild food and medicinal plants. Settlements appear to have been much smaller, implying that society underwent a change away from the large Early Iron Age villages and towards the individual family homesteads of the historic Nguni-speaking peoples

The evidence of written sources (from shipwrecked Portuguese and other mariners) shows that, by the 1550s, while the coastal sourveld of Pondoland was thinly inhabited, coastal Natal from the Mtamvuna northwards was already well populated. A settlement of twenty hemispherical huts built of poles and thatch is described as being typical of the coast at that time. A later report confirms that such 'small villages' were the homes of kinship groups, each under the authority of a senior man (eThembeni 2008:17).

In KwaZulu-Natal, during the second half of the eighteenth century, stronger chiefdoms and paramountcies emerged. However, these were not fully grown states as there was no proper formal central political body established. This changed in the 1780's when a shift towards a more centralized political state occurred which was mainly characterized by population growth and geographical expansion of states. The most important and largest and strongest states at the time were the Mabhudu, Ndwandwe and Mthethwa including the smaller states including the Qwabe, Bhaca, Mbo, Hlubi, Bhele and Ngwane. The Zulu kingdom, established by King Shaka remained the most powerful in the region in the early years of the 19th century and by the time Shaka was assassinated in 1828, he had transformed the nature of Zulu society.

7. RESULT OF SITE INSPECTION

District road 1095 services various residential areas and homes along its length. It crosses several watercourses, three of which will be upgraded. The entire length of the road to be upgraded was driven and a number of sections walked to assess potential heritage resources along the route.

Figure 2 below shows the start of the existing district road D1095. Along its length are residences, cultivated lands and natural grassland (see **Figure 3** below). A power line passes through the area (see **Figure 4** below) as well as a water pipeline. At least two areas along the road appear to have been used as borrow pits for road construction and maintenance.



Figure 2: Start of D1095 road



Figure 3: Residences close to D1095



Figure 4: Existing infrastructure crossing D1095

The area where culvert 1 will be constructed was inspected. The existing culvert or structure used to convey the watercourse has been damaged. No heritage sites were found close to or in the surrounding area of the existing crossing.



Figure 5: Culvert 1

The watercourse crossing for culvert 2 is situated not far from culvert 1. A small dam is situated close to the crossing from which water was being extracted by a construction vehicle during the

inspection. No heritage resources were found close to the proposed culvert or in the surrounding area.



Figure 6: Culvert 2

The proposed concrete pipe / culvert 3 will be installed where the road crosses a river. There is an existing water pipeline along its length and thick vegetation along the river banks.



Figure 7: Concrete pipe / culvert 3

No heritage sites were found in the area to be developed and along the river crossing.



Figure 8: Water pipeline and thick vegetation in background

A number of graves were found along the length of the section of the D1095 road to be upgraded. Most of the grave sites are situated well away from the proposed increase in size of the road. However, two grave sites are located in close proximity of the D1095 and could be impacted by the proposed upgrade. The first grave site, consisting of two graves, is situated at: 30°53'03.20"S; 30°11'11.21"E. The two graves are marked with headstones but with no inscription on the headstones.



Figure 9: Graves situated close to D1095

The graves are overgrown with grass. An abandoned house is situated close to these graves and local residents indicated that the graves are associated with this house. The graves are situated within the proposed 1.5 m widening of the road. It is recommended that the widening of the road take place on the other side of the road where there is a stand of gum trees so as to avoid impacting on the graves. The abandoned house is situated away from the road and should not be impacted by the upgrade.

The other grave is most probably situated outside the 1.5 m required for the widening of the road; however, it is close enough to possibly be impacted by activities associated with the upgrade. The grave is situated at: 30°53'11.20"S; 30°11'06.31"E.



Figure 10: Recent grave

It is recommended that a buffer is placed around the above-mentioned graves (either with fencing or highly visible danger tape) during the construction phase so that they are not impacted by construction activities.

Several other graves, with headstones, were identified during the site inspection. All of these were situated well away from the road and should not be impacted by the proposed upgrade. It is, however recommended that all graves are respected by the construction teams involved in the upgrade and that no graves are damaged or destroyed during the upgrade. The moving or relocation of graves is not recommended.

No other heritage sites were found along or in close proximity to the D1095 road during the site inspection.

The South African Heritage Resources Agency’s (SAHRA) Fossil Sensitivity Map (see **Figure 11** below) indicates that the project area is situated in an area of low fossil sensitivity (blue colour on **Figure 11**). This means that no additional studies are required but that a protocol must be in place in the event of chance finds of fossils during the upgrade of the road. See Chapter 10 of this report for the requirements.

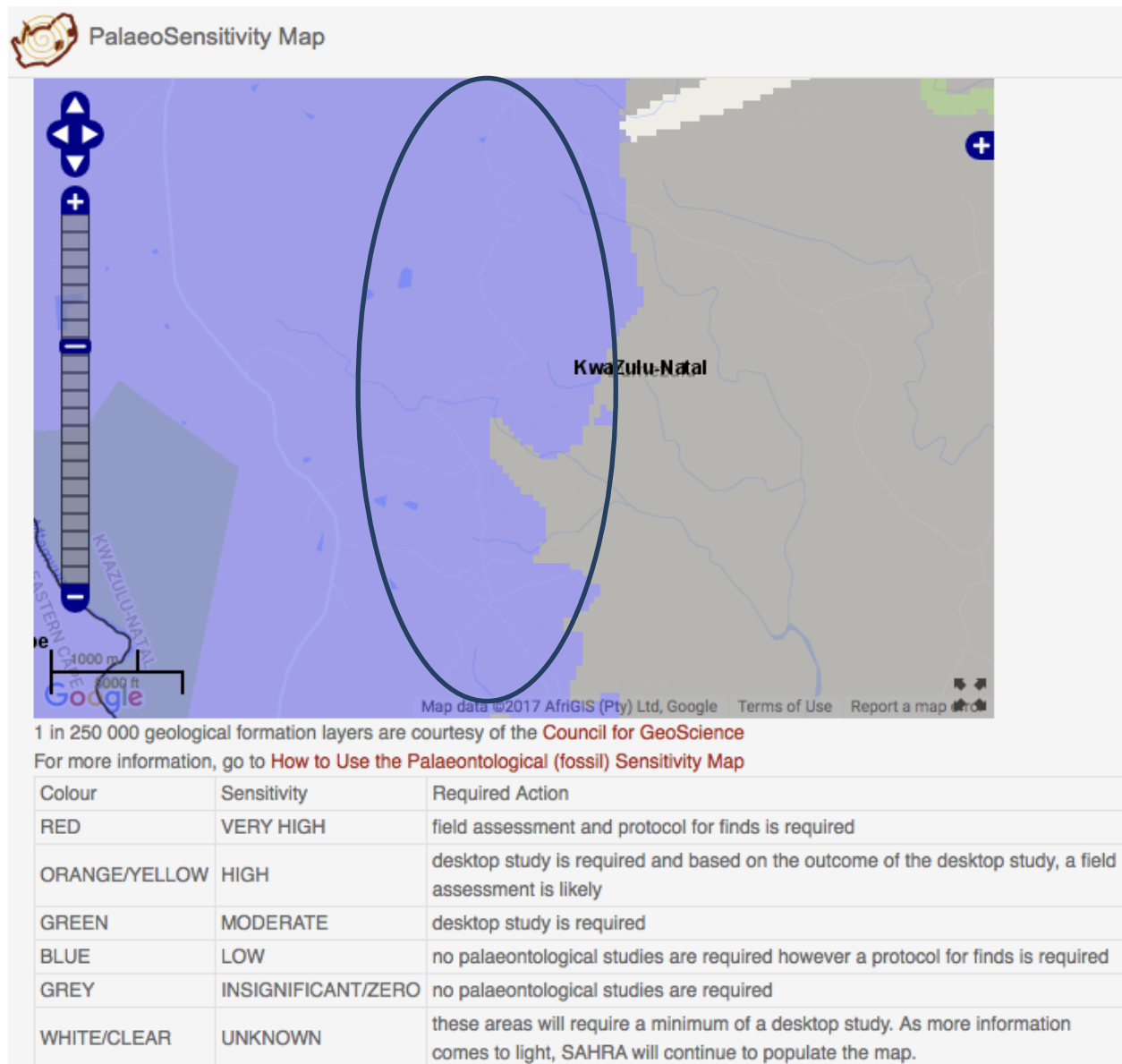


Figure 11: Fossil sensitivity of project area (indicated with blue oval)

8. DISCUSSION AND RECOMMENDATIONS

During the site inspection, a number of graves situated close to the D1095 road were found. These graves could be impacted by the proposed upgrade and it is recommended that the proposed widening of the road avoids impacting on these graves.

It is strongly recommended that the graves are not moved. Graves are highly significant to many people and there are many traditional, cultural and personal sensitivities concerning the removal of graves. It is recommended that the graves should be fenced off and left *in situ*. A buffer of 2m is recommended around the grave/s to avoid damage to them during construction.

If it is decided that the graves are to be moved, the following should be noted: graves are well protected by South African heritage legislation. According to section 35 of the KwaZulu-Natal Heritage Act (KZNHA) (No. 4 of 2008), which refers to general protection of traditional graves, the following is stated:

(1) No grave –

(a) not otherwise protected by this Act; and

(b) not located in a formal cemetery managed or administered by a local authority, may be damaged, altered, exhumed, removed from its original position, or otherwise disturbed without the prior written approval of the Amafa Council having been obtained on written application to the Council.

(2) The Council may only issue written approval once the Council is satisfied that –

(a) the applicant has made a concerted effort to consult with communities and individuals who by tradition may have an interest in the grave; and

(b) the applicant and the relevant communities or individuals have reached agreement regarding the grave.

According to section 3 of the KwaZulu-Natal Heritage Regulations of 2012 (GNR 40 of 2012), which refers to the damage, alteration, exhumation, or removal of graves, an application has to be made to the Amafa Council prior to the above actions taking place. The written application must contain the following information according to subsection (2):

(a) the names and qualifications of the applicant;

(b) the identification of the grave or cemetery to be damaged, altered, exhumed, or removed from its original position; .

(c) the purpose of such damage, alteration, exhumation or removal from its original position;

(d) the location of such grave or cemetery;

(e) the municipal area within which the location of such grave or cemetery is situated; and

(f) particulars of bodies or interest groups consulted by the applicant.

In terms of subsection (5) (1) of regulation 3, the Council must ensure that the applicant has instituted a process of consultation with the relevant community or municipality; and in terms of sub-section (6), if the Council decides to grant the approval, notice of approval must be made in the Gazette. It should be noted that the gazetting of the notice is at the cost of the Applicant.

In terms of subsection (13), approval may only be granted -

- (a) where the work to be carried out is to be done under the supervision of a qualified archaeologist or person approved by the Council;
- (b) with due respect for any human remains and the customs and beliefs of any person or community concerned with such grave or burial ground; and
- (c) after arrangements have been made for the re-interment, if necessary, of any human remains and the re-interment or curation of any other contents of such grave or burial ground, to the satisfaction of the Council and the community involved.

It is recommended that the graves situated close to the road are barricaded either with fencing or highly visible danger tape during the construction/upgrading phase so that they are not impacted by such activities.

9. CONCLUSION

Some grave sites were found that could be impacted by the proposed road upgrade. Damage to these heritage resources can be avoided as long as the recommendations and mitigation measures provided in this report are adhered to. If this is done, then from a heritage perspective, the proposed upgrade of the D1095 district road can proceed.

10. MITIGATION MEASURES

- A buffer zone of 2 m must be placed around the two grave sites identified in this report. The material used can either be fencing or brightly coloured danger tape which is visible to all construction workers.
- Any other graves sites found along the road that may not fall within the construction area must be respected and these sites must not be damaged in any way.
- For any chance finds, all work will cease in the area affected and the Contractor will immediately inform the Project Manager. A registered heritage specialist must be called to

site to inspect the finding/s. The relevant heritage resource agency (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 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.
- If there are chance finds of fossils during construction, a palaeontologist must be called to the site in order to assess the fossils and rescue them if necessary (with an Amafa permit). The fossils must then be housed in a suitable, recognized institute

11. REFERENCES

Bulpin, T.V. 1986. *Discovering Southern Africa*. Interpak Natal

eThembeni Cultural Heritage. 2008. *Heritage Impact Assessment of Port Edward / Harding power lines, KwaZulu-Natal and Eastern Cape Provinces, South Africa*. Unpublished report

Extraordinary Provincial Government Gazette of KwaZulu-Natal. 2012. *KwaZulu-Natal Heritage Regulations 2012*. No. 40, 2 April 2012.

I, **Jean Beater**, declare that –

General declaration:

- I will comply with the requirements for Specialists as stipulated in Regulation 13 of the EIA Regulations, 2014 (as amended in 2017);
- I act as the independent specialist in this application
- I will perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant
- I declare that there are no circumstances that may compromise my objectivity in performing such work;
- I will comply with the Act, regulations and all other applicable legislation;
- I have no, and will not engage in, conflicting interests in the undertaking of the activity;
- I undertake to disclose to the applicant and the competent authority all material information in my possession that reasonably has or may have the potential of influencing - any decision to be taken with respect to the application by the competent authority; and - the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority;
- I will ensure that information containing all relevant facts in respect of the application is distributed or made available to interested and affected parties and the public and that participation by interested and affected parties is facilitated in such a manner that all interested and affected parties will be provided with a reasonable opportunity to participate and to provide comments on documents that are produced to support the application;
- I will ensure that the comments of all interested and affected parties are considered and recorded in reports that are submitted to the competent authority in respect of the application, provided that comments that are made by interested and affected parties in respect of a final report that will be submitted to the competent authority may be attached to the report without further amendment to the report;
- I will keep a register of all interested and affected parties that participated in a public participation process; and
- I will provide the competent authority with access to all information at my disposal regarding the application, whether such information is favourable to the applicant or not
- all the particulars furnished by me in this form are true and correct;
- will perform all other obligations as expected from an environmental assessment practitioner in terms of the Regulations; and
- I am aware that a person is guilty of an offence in terms of Regulation 48 (1) of the EIA Regulations, 2014 (as amended in 2017), if that person provides incorrect or misleading information. A person who is convicted of an offence in terms of sub-regulation 48(1) (a)-(e) is liable to the penalties as contemplated in section 49B(1) of the National Environmental Management Act, 1998 (Act 107 of 1998)

Disclosure of Vested Interest (delete whichever is not applicable)

- I do not have and will not have any vested interest (either business, financial, personal or other) in the proposed activity proceeding other than remuneration for work performed in terms of the Environmental Impact Assessment Regulations, 2014;

Signature of the Specialist:



Name of company:

JLB Consulting

Date:

06 July 2017