




CEDAR TOWER  
SERVICES

## HERITAGE SCREENER

CTS Reference Number:	CTS15_018
Client:	Green Door Environmental
Date:	27 October 2015
Title:	KwaZulu-Natal Nongoma Borrow Pit 25
 <p><b>Figure 1a.</b> Satellite image with proposed development area indicated in KwaZulu-Natal</p>	
Recommendation by CTS Heritage Specialists: ( <b>Type 1</b> )	<b>(1) The heritage resources in the area proposed for development are sufficiently recorded - There are no known sites which require mitigation or management plans. No further heritage work is recommended for the proposed development.</b>

## 1. Proposed Development Summary

Green Door Environmental is undertaking the Basic Assessment Process for the formalization and expansion of borrow pits in the Ulundi and Nongoma municipalities in KwaZulu-Natal on behalf of the Department of Transport. This Heritage Screener is assessing the possible impacts of one of these borrow pits (Borrow Pit 25).

## 2. Application References

<b>Name of relevant heritage authority(s)</b>	Amafa KwaZulu-Natal
<b>Name of decision making authority(s)</b>	Department of Mineral Resources (DMR)

## 3. Property Information

<b>Locality and Tribal Authority</b>	Road reserve along the P735 adjacent to the R66 in KwaNkulu, Zulu/Matheni Tribal Authority
<b>Local Municipality</b>	Nongoma Municipality
<b>District Municipality</b>	Nongoma
<b>Previous Magisterial District</b>	Zululand
<b>Province</b>	KwaZulu-Natal
<b>Current Use</b>	Borrow pit
<b>Current Zoning</b>	Unzoned
<b>Total Extent</b>	3.925 ha

## 4. Nature of the Proposed Development

<b>Surface area to be affected/destroyed</b>	3.925 ha
--	----------



CEDAR TOWER  
SERVICES

Depth of excavation (m)	Unknown
Height of development (m)	0
Expected years of operation before decommission	About 2 years

## 5. Category of Development

Triggers: Section 38(8) of the National Heritage Resources Act	X
Triggers: Section 38(1) of the National Heritage Resources Act	
1. Construction of a road , wall, powerline, pipeline, canal or other similar form of linear development or barrier over 300m in length.	
2. Construction of a bridge or similar structure exceeding 50m in length.	
3. Any development or activity that will change the character of a site-	
a) exceeding 5 000m <sup>2</sup> in extent	X
b) involving three or more existing erven or subdivisions thereof	
c) involving three or more erven or divisions thereof which have been consolidated within the past five years	
4. Rezoning of a site exceeding 10 000m <sup>2</sup>	
5. Other (state):	

## 6. Additional Infrastructure Required for this Development

NA
----



## 7. Mapping



**Figure 1b. Overview Map.** Satellite image with proposed development indicated.



CEDAR TOWER  
SERVICES

## Legend

● Borrow Pit 025

■ Inclusion zone

### Points surveys

● High coverage

● Medium coverage

● Low coverage

### Line surveys

— High coverage

— Medium coverage

— Low coverage

### Area surveys

■ High coverage

■ Medium coverage

■ Low coverage

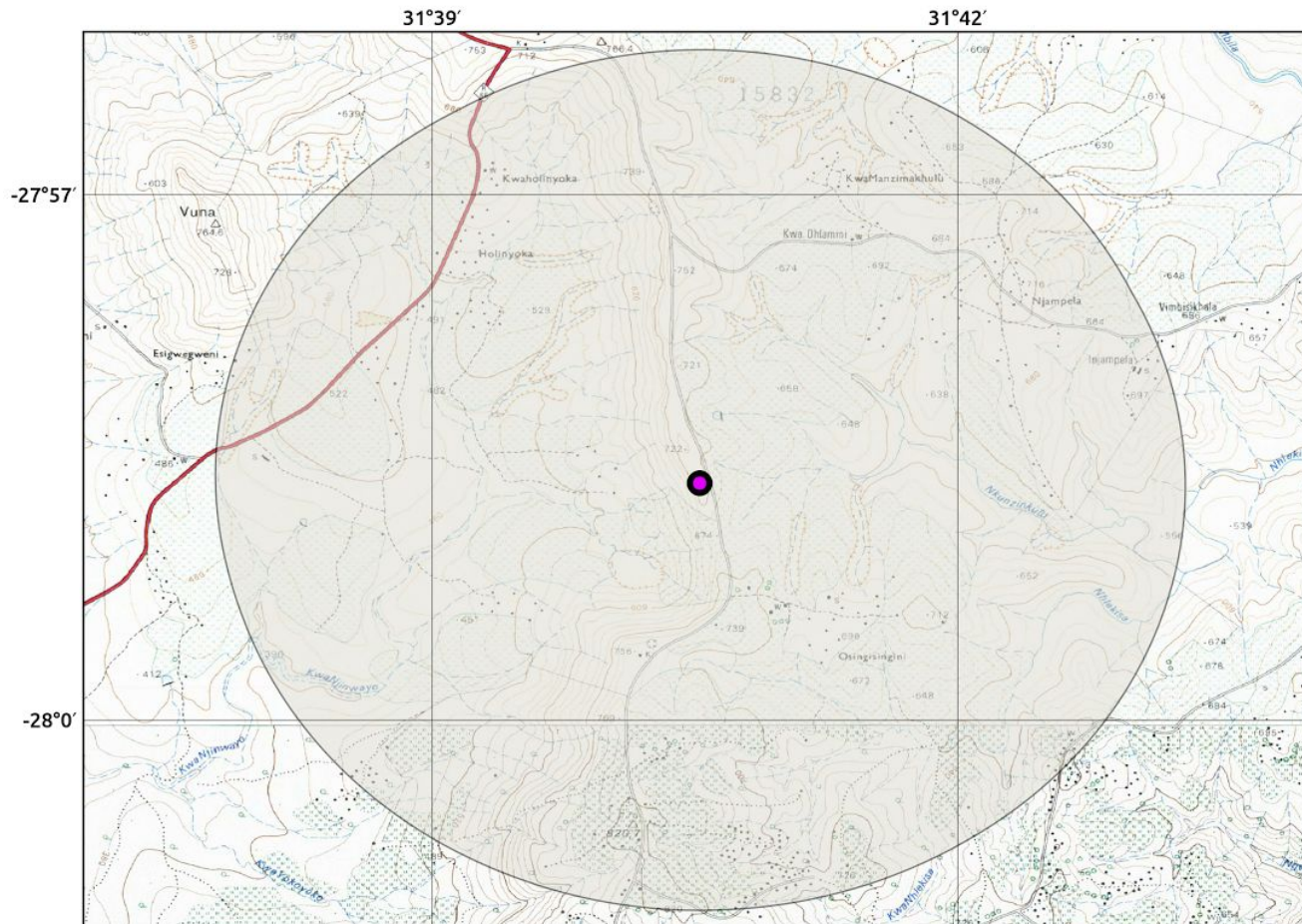
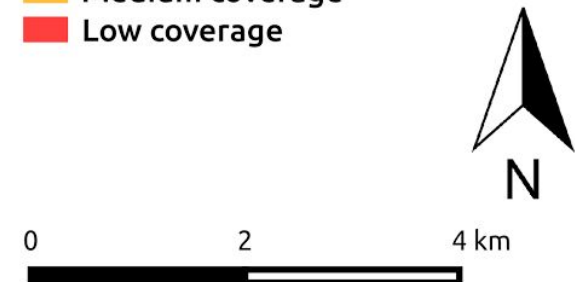
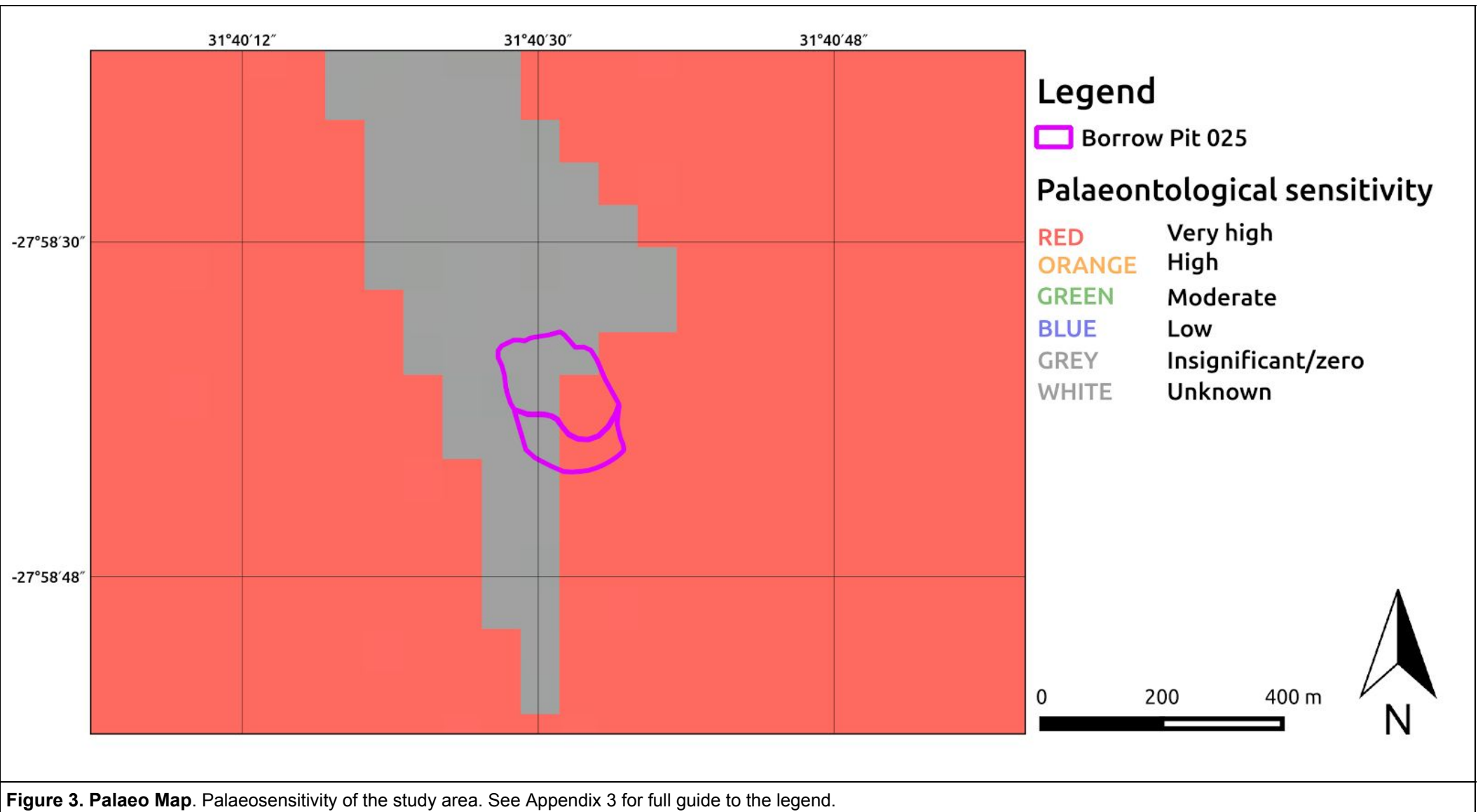


Figure 2. HIAs Map, showing no previous Heritage Impact Assessments done in or near the proposed development.



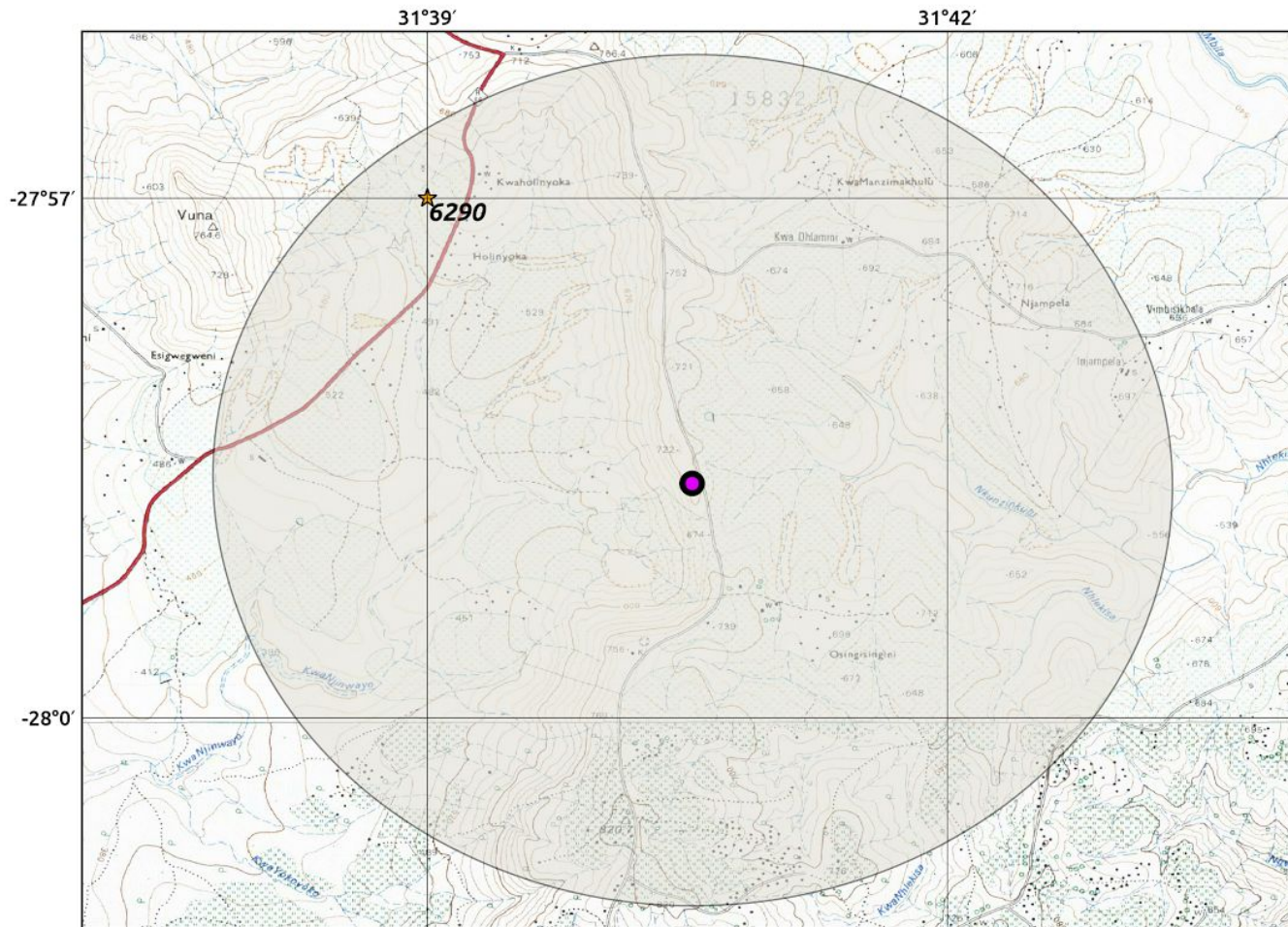
CEDAR TOWER  
SERVICES







CEDAR TOWER  
SERVICES



## Legend

● Borrow Pit 025

■ Inclusion zone

## Heritage resources

### Type

- ☆ Arch, Bat, Geo, Met, Pal, Und
- ◊ Structures, Monuments & Memorials
- Liv. Heritage/Sacred sites, Burial Grounds and Graves, Natural, Place
- △ Conservation Area, Cultural Landscape

### Grading

- |                 |          |
|-----------------|----------|
| <b>DARK RED</b> | I & II   |
| <b>RED</b>      | IIIa     |
| <b>ORANGE</b>   | IIIb     |
| <b>GREEN</b>    | IIIc     |
| <b>CLEAR</b>    | Ungraded |

0 1 2 km



**Figure 4a. Heritage Resources Map.** Heritage resources previously identified in and near the study area, with SAHRIS Site IDs indicated.

## 8. Heritage statement and character of the area

This Heritage Screener is part of a set of 17 screeners for the expansion and formalisation of various borrow pits in Ulundi and Nongoma in KwaZulu-Natal. We have therefore evaluated the 17 applications to justify where additional specialist studies are appropriate in light of Section 38 (3)(d): “an evaluation of the impact of the development on heritage resources relative to the sustainable social and economic benefits to be derived from the development”.

The formalization and expansion of this borrow pit in Nongoma in KwaZulu-Natal is being assessed on behalf of the Department of Transport. The final size after expansion of the borrow pit will be approximately 3.9ha. The surrounding area is used for subsistence farming. An inclusion zone of 5km was set around the borrow pit in order to assess the surrounding heritage character of the area.

One Stone Age artefact site of medium significance was recorded approximately 4km from the borrow pit, but no Heritage Impact Assessments have been undertaken in this area thus far. It is possible that additional Stone Age sites may be located in the area, and there are a few small settlements close by which raises the possibility of finding unmarked and buried graves. However, the entire extent of the existing borrow pit and its proposed extension have already been highly disturbed and impacted by mining activities, therefore **an Archaeological Impact Assessment is not recommended**.

The area is underlain mostly by the Karoo dolerite formation of insignificant fossil sensitivity which is intruding on the Vryheid formation of very high fossil sensitivity. We therefore **do not recommend that a Palaeontological Impact Assessment be done due to the intrusion of dolerite at this site**. However, the consulting palaeontologist may prefer to inspect this borrow pit depending on other factors (depth of excavations or additional information) so allowance should be made for this possibility.





CEDAR TOWER  
SERVICES

## APPENDIX 1 - Site List

Site ID	Site no	Full Site Name	Site Type	Grading
6290	2731DC 002	Kwa Minya Farm	Artefacts	Grade IIIb

## APPENDIX 2 - Reference List

Nid	Author/s	Date	Report Type	Title
NA	NA	NA	NA	NA



CEDAR TOWER  
SERVICES

## APPENDIX 3 - Keys/Guides

### Key/Guide to Acronyms

<b>AIA</b>	Archaeological Impact Assessment
<b>DARD</b>	Department of Agriculture and Rural Development (KwaZulu-Natal)
<b>DEA</b>	Department of Environmental Affairs
<b>DEADP</b>	Department of Environmental Affairs and Development Planning (Western Cape)
<b>DEDEAT</b>	Department of Economic Development, Environmental Affairs and Tourism (Eastern Cape)
<b>DEDECT</b>	Department of Economic Development, Environment, Conservation and Tourism (North West)
<b>DEDT</b>	Department of Economic Development and Tourism (Mpumalanga)
<b>DEDTEA</b>	Department of Economic Development, Tourism and Environmental Affairs (Free State)
<b>DENC</b>	Department of Environment and Nature Conservation (Northern Cape)
<b>DMR</b>	Department of Mineral Resources
<b>GDARD</b>	Gauteng Department of Agriculture and Rural Development (Gauteng)
<b>HIA</b>	Heritage Impact Assessment
<b>LEDET</b>	Department of Economic Development, Environment and Tourism (Limpopo)
<b>MPRDA</b>	Mineral and Petroleum Resources Development Act, no 28 of 2002
<b>NEMA</b>	National Environmental Management Act, no 107 of 1998
<b>NHRA</b>	National Heritage Resources Act, no 25 of 1999
<b>PIA</b>	Palaeontological Impact Assessment
<b>SAHRA</b>	South African Heritage Resources Agency
<b>SAHRIS</b>	South African Heritage Resources Information System
<b>VIA</b>	Visual Impact Assessment

### Full guide to Palaeosensitivity Map legend

<b>RED:</b>	VERY HIGH - field assessment and protocol for finds is required
<b>ORANGE/YELLOW:</b>	HIGH - desktop study is required and based on the outcome of the desktop study, a field assessment is likely
<b>GREEN:</b>	MODERATE - desktop study is required
<b>BLUE/PURPLE:</b>	LOW - no palaeontological studies are required however a protocol for chance finds is required
<b>GREY:</b>	INSIGNIFICANT/ZERO - no palaeontological studies are required
<b>WHITE/CLEAR:</b>	UNKNOWN - these areas will require a minimum of a desktop study.

## APPENDIX 4 - Methodology

The Heritage Screener summarises the heritage impact assessments and studies previously undertaken within the area of the proposed development and its surroundings. Heritage resources identified in these reports are assessed by our team during the screening process.

The heritage resources will be described both in terms of **type**:

- Group 1: Archaeological, Underwater, Palaeontological and Geological sites, Meteorites, and Battlefields
- Group 2: Structures, Monuments and Memorials
- Group 3: Burial Grounds and Graves, Living Heritage, Sacred and Natural sites
- Group 4: Cultural Landscapes, Conservation Areas and Scenic routes

and **significance** (Grade I, II, IIIa, b or c, ungraded), as determined by the author of the original heritage impact assessment report or by formal grading and/or protection by the heritage authorities.

Sites identified and mapped during research projects will also be considered.

### DETERMINATION OF THE EXTENT OF THE INCLUSION ZONE TO BE TAKEN INTO CONSIDERATION

The extent of the inclusion zone to be considered for the Heritage Screener will be determined by CTS based on:

- the size of the development,
- the number and outcome of previous surveys existing in the area
- the potential cumulative impact of the application.

The inclusion zone will be considered as the region within a maximum distance of 50 km from the boundary of the proposed development.

### DETERMINATION OF THE PALAEONTOLOGICAL SENSITIVITY

The possible impact of the proposed development on palaeontological resources is gauged by:

- reviewing the fossil sensitivity maps available on the South African Heritage Resources Information System (SAHRIS)
- considering the nature of the proposed development
- when available, taking information provided by the applicant related to the geological background of the area into account

### DETERMINATION OF THE COVERAGE RATING ASCRIBED TO A REPORT POLYGON

Each report assessed for the compilation of the Heritage Screener is colour-coded according to the level of coverage accomplished. The extent of the surveyed coverage is





labeled in three categories, namely low, medium and high. In most instances the extent of the map corresponds to the extent of the development for which the specific report was undertaken.

**Low coverage** will be used for:

- desktop studies where no field assessment of the area was undertaken;
- reports where the sites are listed and described but no GPS coordinates were provided.
- older reports with GPS coordinates with low accuracy ratings;
- reports where the entire property was mapped, but only a small/limited area was surveyed.
- uploads on the National Inventory which are not properly mapped.

**Medium coverage** will be used for

- reports for which a field survey was undertaken but the area was not extensively covered. This may apply to instances where some impediments did not allow for full coverage such as thick vegetation, etc.
- reports for which the entire property was mapped, but only a specific area was surveyed thoroughly. This is differentiated from low ratings listed above when these surveys cover up to around 50% of the property.

**High coverage** will be used for

- reports where the area highlighted in the map was extensively surveyed as shown by the GPS track coordinates. This category will also apply to permit reports.

## RECOMMENDATION GUIDE

The Heritage Screener includes a set of recommendations to the applicant based on whether an impact on heritage resources is anticipated. One of three possible recommendations is formulated:

**(1) The heritage resources in the area proposed for development are sufficiently recorded** - The surveys undertaken in the area adequately captured the heritage resources. There are no known sites which require mitigation or management plans. No further heritage work is recommended for the proposed development.

This recommendation is made when:

- enough work has been undertaken in the area
- it is the professional opinion of CTS that the area has already been assessed adequately from a heritage perspective for the type of development proposed

**(2) The heritage resources and the area proposed for development are only partially recorded** - The surveys undertaken in the area have not adequately captured the heritage resources and/or there are sites which require mitigation or management plans. Further specific heritage work is recommended for the proposed development.



CEDAR TOWER  
SERVICES

This recommendation is made in instances in which there are already some studies undertaken in the area and/or in the adjacent area for the proposed development. Further studies in a limited HIA may include:

- improvement on some components of the heritage assessments already undertaken, for instance with a renewed field survey and/or with a specific specialist for the type of heritage resources expected in the area
- compilation of a report for a component of a heritage impact assessment not already undertaken in the area
- undertaking mitigation measures requested in previous assessments/records of decision.

**(3) The heritage resources within the area proposed for the development have not been adequately surveyed yet - Few or no surveys have been undertaken in the area proposed for development. A full Heritage Impact Assessment with a detailed field component is recommended for the proposed development.**

**Note:**

The responsibility for generating a response detailing the requirements for the development lies with the heritage authority. However, since the methodology utilised for the compilation of the Heritage Screeners is thorough and consistent, contradictory outcomes to the recommendations made by CTS should rarely occur. Should a discrepancy arise, CTS will immediately take up the matter with the heritage authority to clarify the dispute.

The compilation of the Heritage Screener will not include any field assessment. The Heritage Screener will be submitted to the applicant within 24 hours from receipt of full payment. **If the 24-hour deadline is not met by CTS, the applicant will be refunded in full.**