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**A PHASE 1 (SCOPING) HIA REPORT FOR THE PROPOSED MABOPANE EXT 1  
TOWNSHIP DEVELOPMENT ON PTN 47 OF THE FARM NOOITGEDACHT  
526JR, NORTHWEST PROVINCE**

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**REPORT: APAC014/26**

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## SUMMARY

APELSER ARCHAEOLOGICAL CONSULTING cc was appointed by Seaton Thomson & Associates to conduct a Phase 1 (Scoping) Heritage Impact Assessment for the proposed development of the Mabopane Extension 1 Township on Portion 47 of the farm Nooitgedach 526JR in the Northwest Province. The first part of this study was Desktop based, with the aims being to determine if there are any possible significant archaeological sites and features in the direct and larger geographical area that need be taken into consideration when development commences and that could be potentially negatively impacted upon by future mining operations. The physical fieldwork phase was undertaken during early May 2014.

Various sources were consulted as part of the study. From this it is clear that there are a number of known heritage resources (including Stone Age, Rock Art and Iron Age sites) in the larger geographical area, but no known sites on the specific farm portion where the development activities are proposed, although this might just be the result of a lack of detailed research in the area. Although no sites of significance were found in the sections of the farm where the activities will take place, some recent historical remains were recorded on a section of the study area. These and their significance will be discussed in the report.

**A number of recommendations are put forward at the end of this report. It is however recommended, from a Heritage perspective, that the proposed development be allowed to continue, taking cognizance of the above.**

## CONTENTS

	page
SUMMARY .....	3
CONTENTS.....	4
1. INTRODUCTION .....	5
2. TERMS OF REFERENCE .....	5
3. LEGALISLATIVE REQUIREMENTS .....	5
4. METHODOLOGY .....	8
5. DESCRIPTION OF THE AREA.....	9
6. DISCUSSION.....	12
7. CONCLUSIONS AND RECOMMENDATIONS .....	16
8. REFERENCES .....	17
9. APPENDIX A.....	18
10. APPENIDX B .....	19
11. APPENDIX C.....	20
12. APPENDIX D.....	21
13. APPENDIX E .....	22

## **1. INTRODUCTION**

APELSER ARCHAEOLOGICAL CONSULTING cc was appointed by Seaton Thomson & Associates to conduct a Phase 1 (Scoping) Heritage Impact Assessment for the proposed development of the Mabopane Extension 1 Township on Portion 47 of the farm Nooitgedach 526JR in the Northwest Province. The first part of this study was Desktop based, with the aims being to determine if there are any possible significant archaeological sites and features in the direct and larger geographical area that need be taken into consideration when development commences and that could be potentially negatively impacted upon by future mining operations. The physical fieldwork phase was undertaken during early May 2014.

Various sources were consulted as part of the study. From this it is clear that there are a number of known heritage resources (including Stone Age, Rock Art and Iron Age sites) in the larger geographical area, but no known sites on the specific farm portion where the development activities are proposed, although this might just be the result of a lack of detailed research in the area.

The client indicated the location and boundaries of the study area, and the work focused on this.

## **2. TERMS OF REFERENCE**

The Terms of Reference for the study were to:

1. Identify all objects, sites, occurrences and structures of an archaeological (and/or historical-archaeological) nature located in the area of proposed development;
2. Assess the significance of any possible cultural resources in terms of their archaeological, historical, scientific, social, religious, aesthetic and tourism value;
3. Describe the possible impact of the proposed development on these archaeological remains, according to a standard set of conventions;
4. Propose suitable mitigation measures to minimize possible negative impacts on the archaeological resources;
5. Review applicable legislative requirements;

## **3. LEGISLATIVE REQUIREMENTS**

Aspects concerning the conservation of cultural resources are dealt with mainly in two acts. These are the National Heritage Resources Act (Act 25 of 1999) and the National Environmental Management Act (Act 107 of 1998).

### **3.1 The National Heritage Resources Act**

According to the above-mentioned act the following is protected as cultural heritage resources:

- a. Archaeological artifacts, structures and sites older than 100 years
- b. Ethnographic art objects (e.g. prehistoric rock art) and ethnography
- c. Objects of decorative and visual arts
- d. Military objects, structures and sites older than 75 years
- e. Historical objects, structures and sites older than 60 years
- f. Proclaimed heritage sites
- g. Grave yards and graves older than 60 years
- h. Meteorites and fossils
- i. Objects, structures and sites of scientific or technological value.

The national estate includes the following:

- 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 features of cultural significance
- e. Geological sites of scientific or cultural importance
- f. Sites of Archaeological and palaeontological importance
- g. Graves and burial grounds
- h. Sites of significance relating to the history of slavery
- i. Movable objects (e.g. archaeological, palaeontological, meteorites, geological specimens, military, ethnographic, books etc.)

A Heritage Impact Assessment (HIA) is the process to be followed in order to determine whether any heritage resources are located within the area to be developed as well as the possible impact of the proposed development on these possible heritage resources. An Archaeological Impact Assessment (AIA) only looks at archaeological resources. An HIA must be done under the following circumstances:

- a. The construction of a linear development (road, wall, power line, canal etc.) exceeding 300m in length
- b. The construction of a bridge or similar structure exceeding 50m in length
- c. Any development or other activity that will change the character of a site and exceed 5 000m<sup>2</sup> or involve three or more existing erven or subdivisions thereof
- d. Re-zoning of a site exceeding 10 000 m<sup>2</sup>
- e. Any other category provided for in the regulations of SAHRA or a provincial heritage authority

### **Structures**

Section 34 (1) of the mentioned act states that no person may demolish any structure or part thereof which is older than 60 years without a permit issued by the relevant provincial heritage resources authority.

A structure means any building, works, device or other facility made by people and which is fixed to land, and includes any fixtures, fittings and equipment associated therewith.

Alter means any action affecting the structure, appearance or physical properties of a place or object, whether by way of structural or other works, by painting, plastering or the decoration or any other means.

### **Archaeology, palaeontology and meteorites**

Section 35(4) of the Act deals with archaeology, palaeontology and meteorites. The Act states that no person may, without a permit issued by the responsible heritage resources authority (national or provincial):

- a. destroy, damage, excavate, alter, deface or otherwise disturb any archaeological or palaeontological site or any meteorite;
- b. destroy, damage, excavate, remove from its original position, collect or own any archaeological or palaeontological material or object or any meteorite;
- c. trade in, sell for private gain, export or attempt to export from the Republic any category of archaeological or palaeontological material or object, or any meteorite; or
- d. bring onto or use at an archaeological or palaeontological site any excavation equipment or any equipment that assists in the detection or recovery of metals or archaeological and palaeontological material or objects, or use such equipment for the recovery of meteorites.
- e. alter or demolish any structure or part of a structure which is older than 60 years as protected.

**The above mentioned may only be disturbed or moved by an archaeologist, after receiving a permit from the South African Heritage Resources Agency (SAHRA). In order to demolish such a site or structure, a destruction permit from SAHRA will also be needed.**

### **Human remains**

Graves and burial grounds are divided into the following:

- a. ancestral graves
- b. royal graves and graves of traditional leaders
- c. graves of victims of conflict
- d. graves designated by the Minister
- e. historical graves and cemeteries
- f. human remains

In terms of Section 36(3) of the National Heritage Resources Act, no person may, without a permit issued by the relevant heritage resources authority:

- a. destroy, damage, alter, exhume or remove from its original position or otherwise disturb the grave of a victim of conflict, or any burial ground or part thereof which contains such graves;
- b. destroy, damage, alter, exhume or remove from its original position or otherwise disturb any grave or burial ground older than 60 years which is situated outside a formal cemetery administered by a local authority; or

- c. bring onto or use at a burial ground or grave referred to in paragraph (a) or (b) any excavation, or any equipment which assists in the detection or recovery of metals.

Human remains that are less than 60 years old are subject to provisions of the Human Tissue Act (Act 65 of 1983) and to local regulations. Exhumation of graves must conform to the standards set out in the **Ordinance on Excavations (Ordinance no. 12 of 1980)** (replacing the old Transvaal Ordinance no. 7 of 1925).

Permission must also be gained from the descendants (where known), the National Department of Health, Provincial Department of Health, Premier of the Province and local police. Furthermore, permission must also be gained from the various landowners (i.e. where the graves are located and where they are to be relocated) before exhumation can take place.

Human remains can only be handled by a registered undertaker or an institution declared under the **Human Tissues Act (Act 65 of 1983 as amended)**.

Unidentified/unknown graves are also handled as older than 60 until proven otherwise.

### **3.2 The National Environmental Management Act**

This act states that a survey and evaluation of cultural resources must be done in areas where development projects, that will change the face of the environment, will be undertaken. The impact of the development on these resources should be determined and proposals for the mitigation thereof are made.

Environmental management should also take the cultural and social needs of people into account. Any disturbance of landscapes and sites that constitute the nation's cultural heritage should be avoided as far as possible and where this is not possible the disturbance should be minimized and remedied.

## **4. METHODOLOGY**

### **4.1 *Survey of literature***

A survey of available literature was undertaken in order to place the development area in an archaeological and historical context. The sources consulted in this regard are indicated in the bibliography.

### **4.2 *Field survey***

The assessment was conducted according to generally accepted AIA/HIA practices and was aimed at locating all possible objects, sites and features of cultural heritage (archaeological and historical) significance in the area of the proposed development. The location/position of all sites, features and objects was determined by means of a Global Positioning System (GPS) where possible, while photographs were also taken where needed.

Although the assessment was undertaken partially on foot, large sections were traversed by vehicle.



#### 4.3 *Oral histories*

People from local communities are sometimes interviewed in order to obtain information relating to the surveyed area. It needs to be stated that this is not applicable under all circumstances. When applicable, the information is included in the text and referred to in the bibliography.

#### 4.4 *Documentation*

All sites, objects, features and structures identified are documented according to the general minimum standards accepted by the archaeological profession. Co-ordinates of individual localities are determined by means of the Global Positioning System (GPS). The information is added to the description in order to facilitate the identification of each locality.

### **5. DESCRIPTION OF THE AREA**

APELSER ARCHAEOLOGICAL CONSULTING cc was appointed by Seaton Thomson & Associates to conduct a Phase 1 (Scoping) Heritage Impact Assessment for the proposed development of the Mabopane Extension 1 Township on Portion 47 of the farm Nooitgedach 526JR in the Northwest Province.

The topography of the area is relatively flat, although there are some rocky ridges and outcrops located in some sections. The area is surrounded by residential and other developments, and some impacts as a result have occurred. This includes the informal dumping of both building rubble and residential refuse, while foot paths and single dirt tracks traverse the area as well. There are some evidence of earlier agriculture in the area (ploughing and grazing) also. A stream also crosses through the area. The study area is also fairly open in terms of vegetation, although grass cover was relatively dense at the time of the survey. Large trees are no common, although tree cover is present.



**Figure 1: Aerial view of study area location & boundaries of development area (Google Earth 2014 – Image date 2013/10/16).**



**Figure 2: General view of a section of the area. Note the grass cover & relatively scarce tree cover.**



**Figure 3: Another view. Note the dirt track that is common throughout the study area.**



**Figure 4: View of a section of the stream that crosses through the area. Vegetation around the watercourse is denser than in the rest of the area.**



**Figure 5: Informal refuse dumping occurs in the area.**

## **6. DISCUSSION**

The Stone Age is the period in human history when lithic (stone) material was mainly used to produce tools. In South Africa the Stone Age can be divided basically into three periods. It is however important to note that dates are relative and only provide a broad framework for interpretation. A basic sequence for the South African Stone Age (Lombard et.al 2012) is as follows:

- Earlier Stone Age (ESA) up to 2 million – more than 200 000 years ago
- Middle Stone Age (MSA) less than 300 000 – 20 000 years ago
- Later Stone Age (LSA) 40 000 years ago – 2000 years ago

It should also be noted that these dates are not a neat fit because of variability and overlapping ages between sites (Lombard et.al 2012: 125).

Stone Age sites (ESA to LSA) are known in the larger geographical area (some in the so called Magaliesberg Research Area), which includes rock art sites (Bergh 1999: 4). No Stone Age sites, features or objects were identified during the assessment, but there is always a possibility that scattered single stone tools could be located close to the banks of the stream that crosses through a section of the study area.

The Iron Age is the name given to the period of human history when metal was mainly used to produce artifacts. In South Africa it can be divided in two separate phases according to (Bergh 1999: 96-98), namely:

- Early Iron Age (EIA) 200 – 1000 A.D.
- Late Iron Age (LIA) 1000 – 1850 A.D.

Huffman (2007: xiii) however indicates that a Middle Iron Age should be included. His dates, which now seem to be widely accepted in archaeological circles, are:

Early Iron Age (EIA) 250 – 900 A.D.  
Middle Iron Age (MIA) 900 – 1300 A.D.  
Late Iron Age (LIA) 1300 – 1840 A.D.

There are no known Iron Age sites close to and in the study area, although there are quite a large number of LIA stone walled sites in the larger geographical area (Bergh 1999: 7). The closest known EIA site is located at Broederstroom (p.6). Once again no Iron Age sites, features or objects were identified during the survey in the study area. The research of Prof. Tom Huffman indicates that the following Iron Age traditions might have been present in the larger geographical area in which the study area is located. This includes the Mzonjani facies (related to the Broederstroom site) of the Urewe Tradition dating to between AD450 and AD750 (Huffman 2007: 127); the Uitkomst facies of the same tradition dating to between AD1650 & AD1820 (p. 171); the Olifantspoort facies of the same, dating to between AD1500 & AD1700 (p.191) and finally the Buispoort facies of the Urewe Tradition dating to between AD1700 & AD1840 (p.203).

The historical period started with the moving into the area by the first Europeans. The first groups to move through the larger area were those of Schoon & McLuckie and Moffat & Archbell in 1829, followed by Andrew Smith in 1835 and then David Livingstone in 1847 (Bergh 1999: 12-13), closely followed by the Voortrekkers and first white farmers. No early maps of the area and the farm could be located in the database of the Chief Surveyor General ([www.csg.dla.gov.za](http://www.csg.dla.gov.za)).

One site dating to the recent historical period was identified during the assessment, and will be discussed in the section below.

### ***Results of fieldwork***

Only a single site, consisting of a number of features spread out over a portion of the study area, was identified and will be impacted on by the proposed development.

#### **Site 1**

The site contains the remains (mainly foundations) of a number of stone and brick built homesteads scattered in a section of the study area close to the boundary of the new proposed development with the existing Odinburg Gardens Township. It is unknown what the age of these are, but it is likely younger than 60 years of age and possibly related to earlier informal settlement in the area prior to the modern day developments. Very little of the former homesteads still exist and their significance have therefore been nearly completely destroyed.

Although no graves or grave sites were identified, the possibility of these existing close to or related to any human settlement should be considered. Should any sites (unknown or unmarked) of this nature be identified or uncovered during the development activities they should be reported and investigated by a Grave Investigation & Exhumation specialist.

**Cultural significance:** Low (Settlement remains).

**Heritage Significance:** None

**Field rating:** General protection C (IV C): Phase 1 is seen as a sufficient recording of the existing structure and it may therefore be demolished of (low significance).

**Mitigation measures:** None required. If any previously unknown graves are identified during any of the development actions they should be reported and investigated. If possible the graves should not be disturbed, but if this is unavoidable the necessary processes should be followed to facilitate their legal and successful relocation.

**GPS Location:** S25 30.459 E28 00.943



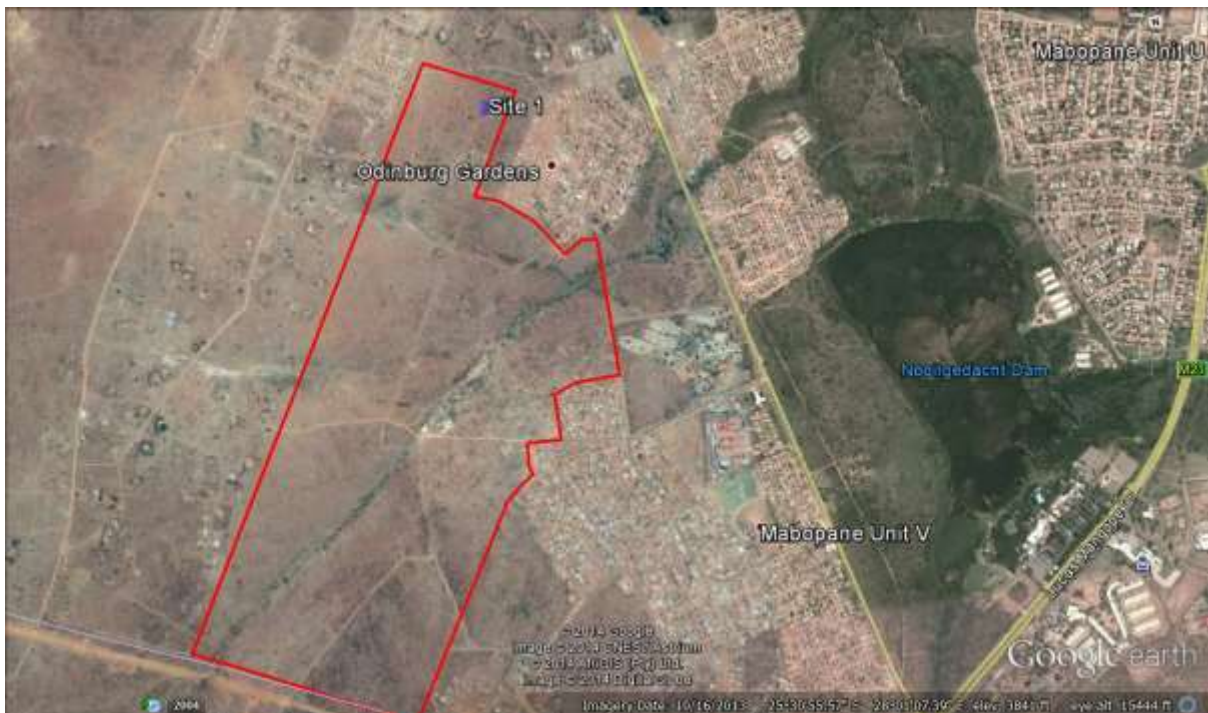
**Figure 6: One of the old homestead foundations.**



**Figure 7: Ruins of another old homestead.**



**Figure 8: Remains of a clay brick homestead on Site 1.**



**Figure 9: Location of Site 1 (Google Earth 2014 – Image date 2013/10/16).**



**Figure 10: View of study area showing tracks followed during the assessment. Mainly existing footpaths and dirt tracks were utilized to conduct the survey.**

## **7. CONCLUSIONS AND RECOMMENDATIONS**

In conclusion it is possible to say that the Phase 1 (Scoping) HIA for the proposed Mabopane Extensio 1 Township Development, located on Portions 47 of the farm Nooitgedacht 526 JR, near Mabopane in the Northwest, have been conducted successfully. The study area have been disturbed to some extent in the recent past through agricultural activities (ploughing, grazing) and other human actions (surrounding residential development, dumping) and if any sites, features or material of cultural heritage (archaeological & historical) significance did exist here in the past it would have been extensively disturbed or destroyed as a result.

There are no known archaeological or historical sites or features in the study area, although a range does exist in the larger geographical area it is located within. No sites, features or material of any cultural significance were recorded in the area during the assessment. The only site (Site 1) recorded most likely date to less than 60 years ago, and consist of the remains of (foundations mainly) of recently abandoned informal homesteads. The Phase 1 work done is seen as sufficient and these can be demolished once development work commences. The subterranean presence of any archaeological or historical sites, features or objects should always be kept in mind however.

In the light of the above the following recommendations are made:

- 1. that the proposed development be allowed to continue, but that should any other unknown objects, sites or features of archaeological nature be uncovered during**



**any development activities, that work in this area/s be halted immediately for inspection and recommendations regarding the way forward. This will include any possible previously unknown, low stone packed or unmarked graves in the area**

## **8. REFERENCES**

Aerial views of the study area, site distribution and Track Paths: Google Earth 2014 – Imagery date: 2013/10/16.

Bergh, J.S. (red.). 1999. **Geskiedenisatlas van Suid-Afrika. Die vier noordelike provinsies.** Pretoria: J.L. van Schaik.

Knudson, S.J. 1978. **Culture in retrospect.** Chicago: Rand McNally College Publishing Company.

Lombard, M., L. Wadley, J. Deacon, S. Wurz, I. Parsons, M. Mohapi, J. Swart & P. Mitchell. 2012. **South African and Lesotho Stone Age Sequence Updated (I).** South African Archaeological Bulletin **67** (195): 120–144, 2012.

Republic of South Africa. 1999. **National Heritage Resources Act** (No 25 of 1999). Pretoria: the Government Printer.

Republic of South Africa. 1998. **National Environmental Management Act** (no 107 of 1998). Pretoria: The Government Printer.

Chief Surveyor General Database ([www.csg.dla.gov.za](http://www.csg.dla.gov.za)).

## **APPENDIX A**

### **DEFINITIONS:**

**Site:** Means a large place with extensive structures and related cultural objects. It can also be a large assemblage of cultural artifacts, found on a single location.

**Structure:** Means a permanent building found in isolation or which forms a site in conjunction with other structures.

**Feature:** Means a coincidental find of movable cultural objects.

**Object:** Means an Artifact (cultural object).

(Also see Knudson 1978: 20).

## APPENDIX B

### DEFINITIONS/STATEMENTS OF HERITAGE SIGNIFICANCE:

- Historic value:** Important in the community or pattern of history or has an association with the life or work of a person, group or organization of importance in history.
- Aesthetic value:** Important in exhibiting particular aesthetic characteristics valued by a community or cultural group.
- Scientific value:** Potential to yield information that will contribute to an understanding of natural or cultural history or is important in demonstrating a high degree of creative or technical achievement of a particular period
- Social value:** Have a strong or special association with a particular community or cultural group for social, cultural or spiritual reasons.
- Rarity:** Does it possess uncommon, rare or endangered aspects of natural or cultural heritage.
- Representivity:** Important in demonstrating the principal characteristics of a particular class of natural or cultural places or object or a range of landscapes or environments characteristic of its class or of human activities (including way of life, philosophy, custom, process, land-use, function, design or technique) in the environment of the nation, province region or locality.

## APPENDIX C

### SIGNIFICANCE AND FIELD RATING:

#### 1. Cultural significance:

- Low: A cultural object being found out of context, not being part of a site or without any related feature/structure in its surroundings.
- Medium: Any site, structure or feature being regarded less important due to a number of factors, such as date and frequency. Also any important object found out of context.
- High: Any site, structure or feature regarded as important because of its age or uniqueness. Graves are always categorized as of a high importance. Also any important object found within a specific context.

#### 2. Heritage significance:

- Grade I: Heritage resources with exceptional qualities to the extent that they are of national significance.
- Grade II: Heritage resources with qualities giving it provincial or regional importance although it may form part of the national estate.
- Grade III: Other heritage resources of local importance and therefore worthy of conservation.

#### 3. Field ratings:

- National Grade I significance: Should be managed as part of the national estate.
- Provincial Grade II significance: Should be managed as part of the provincial estate.
- Local Grade IIIA: Should be included in the heritage register and not be mitigated (high significance).
- Local Grade IIIB: Should be included in the heritage register and may be mitigated (high/ medium significance).
- General protection A (IV A): Site should be mitigated before destruction (high/ medium significance).
- General protection B (IV B): Site should be recorded before destruction (medium significance).
- General protection C (IV C): Phase 1 is seen as a sufficient recording of the existing structure and it may therefore be demolished of (low significance).

## APPENDIX D

### PROTECTION OF HERITAGE RESOURCES:

#### 1. Formal protection:

Formal protection is applicable to the following:

- National heritage sites and Provincial heritage sites – grades I and II
- Protected areas – which is described as an area surrounding a heritage site
- Provisional protection – described as protection for a maximum period of two years
- Heritage registers – listings of grades II and III
- Heritage areas – areas which include more than one heritage site
- Heritage objects – heritage objects include inter alia archaeological, paleontological, meteorites, geological specimens, visual art, military, numismatic and books.

#### 2. General protection:

General protection is applicable to:

- Objects protected by the laws of foreign states
- Structures – older than 60 years
- Archaeology, paleontology and meteorites
- Burial grounds and graves
- Public monuments and memorials

## **APPENDIX E**

### **HERITAGE IMPACT ASSESSMENT PHASES**

- Phase 1: Pre-assessment or scoping phase – the establishment of the scope of the project and the terms of reference.
- Phase 2: Baseline assessment – the establishment of a broad framework of the potential heritage of an area.
- Phase 3: Assessment of potential impacts – the identification of sites, assessment of their significance, commenting on the potential impact of the proposed development and recommending mitigation measures or the conservation thereof.
- Phase 4: Letter of recommendation for exemption –submitted in the event that no likelihood exists that any sites will be impacted upon.
- Phase 5: Mitigation or rescue – planning the protection of significant sites or sampling through excavation or collection (after receiving a permit) of sites that may be lost.
- Phase 6: Compilation of and implementation of a management plan – in rare cases where sites are regarded as of high importance such that development cannot be permitted unconditionally.