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CK 2006/014630/23

VAT NO.: 4360226270

**A BASIC HERITAGE IMPACT ASSESSMENT REPORT FOR THE
LAKEVIEW FLOODLINE CONFINEMENT AND WATER USE LICENCE
APPLICATION, CONSTANTIA KLOOF, ROODEPOORT**

For:

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January 2013

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SUMMARY

APELSER ARCHAEOLOGICAL CONSULTING cc was commissioned by Strategic Environmental Consulting, on recommendation by the Provincial Heritage Authority of Gauteng to conduct a Basic Heritage Impact Assessment for the proposed Lakeview Floodline Confinement and Water Use License Application. The site that had to be assessed is located in Constantia Kloof near Roodepoort in Gauteng.

Various sources were consulted as part of the study, while a physical field survey was undertaken during January 2013. The area under scrutiny has been extensively disturbed and developed and no sites, features or objects of cultural heritage (archaeological or historical) significance were identified. The results of the study are discussed in this report.

It is therefore our recommendation that the proposed development could continue, taking into consideration the recommendations put forward at the end of the document.

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	8
6. DISCUSSION	12
7. CONCLUSIONS AND RECOMMENDATIONS	14
8. REFERENCES.....	14
9. APPENDIX A.....	16
10. APPENIDX B	17
11. APPENDIX C	18
12. APPENDIX D.....	19
13. APPENDIX E.....	19

1. INTRODUCTION

APELSER ARCHAEOLOGICAL CONSULTING cc was commissioned by Strategic Environmental Consulting, on recommendation by the Provincial Heritage Authority of Gauteng to conduct a Basic Heritage Impact Assessment for the proposed Lakeview Floodline Confinement and Water Use License Application. The site that had to be assessed is located in Constantia Kloof near Roodepoort in Gauteng.

Various sources were consulted as part of the study, while a physical field survey was undertaken during January 2013. The area under scrutiny has been extensively disturbed and developed and no sites, features or objects of cultural heritage (archaeological or historical) significance were identified.

The client indicated the boundaries of the area to be studied and the assessment was confined to this.

2. TERMS OF REFERENCE

The Terms of Reference for the study were to:

- to conduct a basic heritage impact assessment in order to determine the possible existence of known or unknown significant archaeological and historical (cultural heritage) sites and features in the area where the proposed development is to take place, and which could be negatively impacted on by development actions.

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) as amended.

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 thereon. 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 000m² or involve three or more existing erven or subdivisions thereof
- d. Re-zoning of a site exceeding 10 000 m²
- 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 this 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 (as amended)

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 recommendations regarding possible mitigation measures to minimize the impact should be 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 literature, archival and other sources of data was undertaken in order to obtain background archaeological and historical information regarding the area that will be impacted on by the proposed development. Sources consulted in this regard are indicated in the bibliography.

4.2 Field survey

A field survey, comprising both a foot and vehicular assessment, was undertaken on the 22nd of January 2013.

5. DESCRIPTION OF THE AREA

Lakeview is located between Constantia Kloof and Flora Cliff in Roodepoort, and is named after the man-made lake situated here. Constantia Kloof borders suburbs such as Struben's Valley, Weltevreden Park, Helderkruin and Allen's Nek.

The area has been extensively developed residentially, while Office Parks, shopping complexes and a hotel (Roodepoort Town Lodge) surrounds the lake area. The office complexes include SANLAM and the South African National Blood Service buildings. Other residential developments such as roads have also impacted on the wider area extensively, and as a result very little of the areas' original prehistoric and historic fabric remains. Visibility was relatively clear, although dense grass around the edge of the lake made visibility difficult.



Figure 1: Locality map (courtesy SEF).

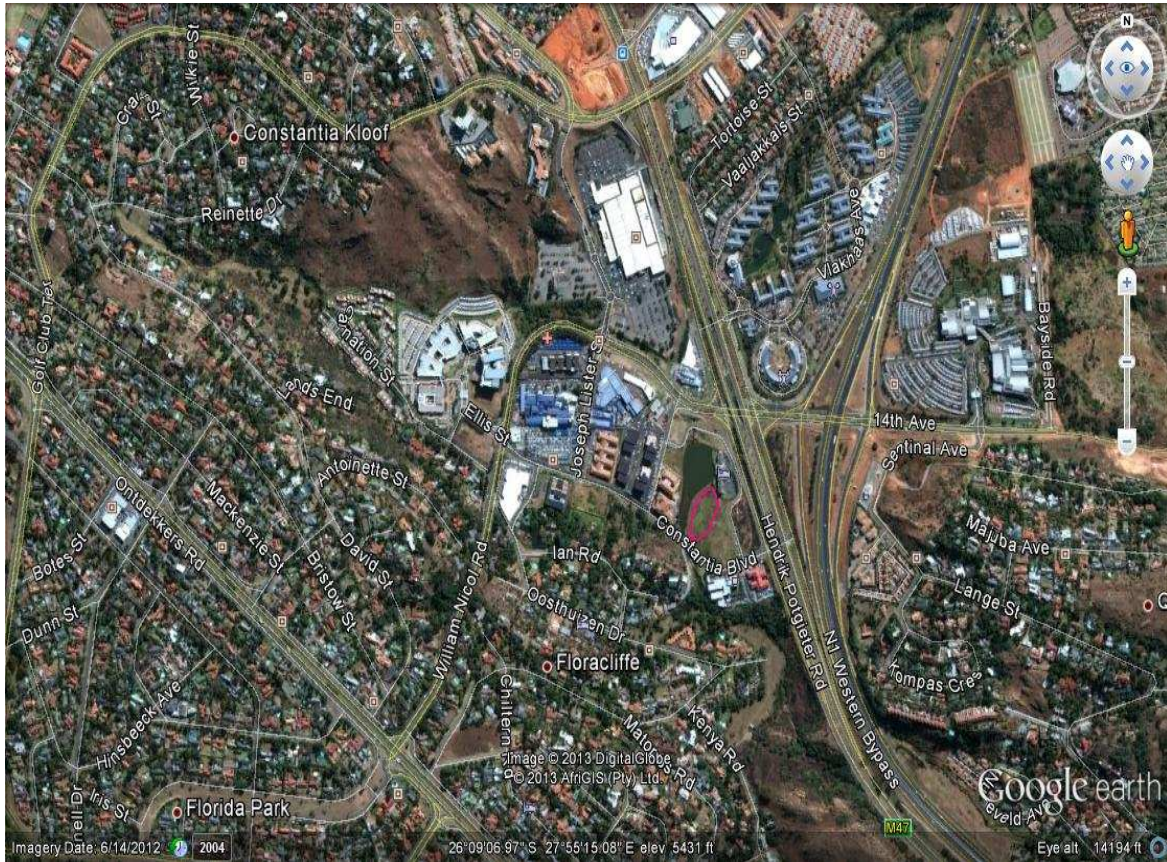
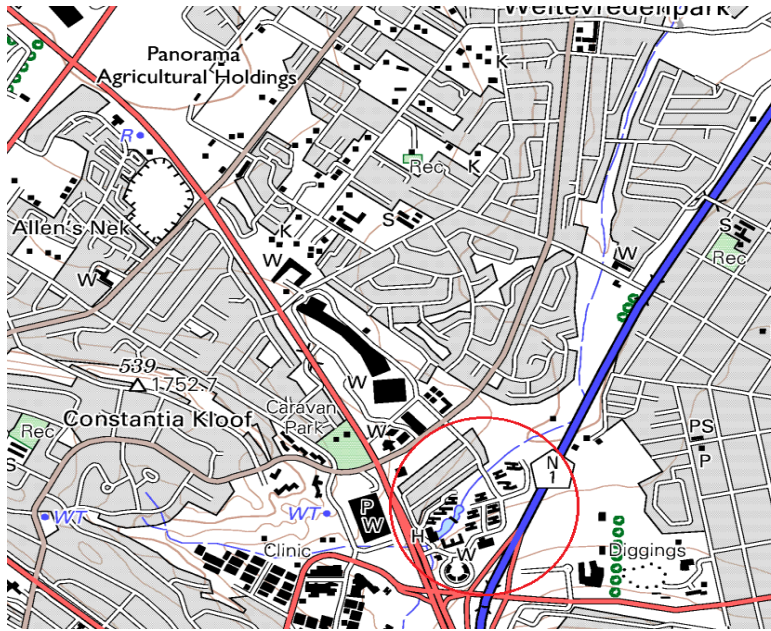


Figure 2: Aerial view of location of area (in purple).



Figure 3: Closer view of location of area.



**Figure 4: Topographic Location of area
(1:50 000 Map Series 2627BD Roodepoort 2002).**



**Figure 5: View of the lake showing Town Lodge (left),
SANB Service (centre) and other office buildings (right)
of picture.**



Figure 6: Closer view of the lake with the Roodepoort Town Lodge visible.

6. DISCUSSION

From the 1:50 000 topographic map (2627BD Roodepoort – dating to 2002) it is clear that that the area has been extensively developed residentially. As a result any archaeological or historical sites, features or that could have existed here in the past would have been disturbed or destroyed to a large degree.

A general, background to archaeology is given in the following section, after which the archaeology and history of the area will be discussed in short.

6.1 Stone Age

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 in 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).

No Stone Age sites (including rock art) are known to occur in the immediate study area. The closest known Stone Age sites in the larger Johannesburg Municipal area include Aasvoelkop, Melville Koppies, Glenferness and Pietkloof dating from the Earlier to Later

Stone Age (Bergh 1999: 4). If any Stone Age occurrences (tools) were to be found at Lakeview these would be single, out of context, tools.

6.2 Iron Age

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 Van der Ryst & Meyer (Bergh 1999: 96-98), namely:

Early Iron Age (EIA) 200 – 1000 A.D.

Late Iron Age (LIA) 1000 – 1850 A.D.

Huffman (2007: xiii) indicates that a Middle Iron Age should be included. His dates, which are 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 in the immediate study area, with the closest Late Iron Age located at Bruma Lake and Melville Koppies (Bergh 1999: 7).

6.3 Historical Age

The historical age started with the first recorded oral histories in the area. It includes the moving into the area of people that were able to read and write. The first Europeans to venture into the area were the group of adventurer and hunter Cornwallis Harris in 1836 (Bergh 1999: 13). In 1884, brothers Fred and Harry Struben, having discovered gold on the farm Wilgespruit at the western end of the Witwatersrand, were granted concessions to mine the area. When George Harrison's find at Langlaagte came to light and gold fever took hold, the Strubens brothers were joined by a swarm of gold diggers. Though the Confidence Reef bore little gold and their mine was unprofitable, the ramshackle town that grew around it became the Roodepoort municipality in 1904. Incorporating the towns of Hamburg, Florida and Maraisburg, Roodepoort became a city in 1977. Although Roodepoort has traditionally been regarded as being part of the West Rand, it is was not made part of the West Rand District Municipality, instead being integrated into the City of Johannesburg Metropolitan Municipality, following the post-apartheid re-organization of local government in the late 1990s (www.wikipedia.org.za).

During the Anglo-Boer War (1899-1902) the larger area saw some action (with a battle at Doornkop on the 29th of May 1900)[Bergh 1999: 51,53]. Doornkop was also the site where dr. Jameson surrendered to the ZAR after the ill-fated Jameson Raid or invasion in 1896 (Praagh 1906: 469). Doornkop is approximately 15km southwest of the study area. The same source indicates that Roodepoort became a municipality 1903, but only received full municipal rights in 1905 (Praagh 1906: 469).

No prehistoric (archaeological) or historical sites, features or objects were identified during the site assessment. As mentioned earlier if any did exist here in the past it would have been disturbed or destroyed completely by the many developments in the recent past.

7. CONCLUSIONS AND RECOMMENDATIONS

In conclusion it is possible to say that the Basic Heritage Impact Assessment for the Lakeview Floodline Confinement and Water Use License Application, situated in Constantia Kloof, Roodepoort, has been successfully completed. The area under assessment has been extensively disturbed through residential and other developments on the recent past. The lake itself is a man-made construct. If any sites did exist here in the past they would more than likely have been completely disturbed or destroyed as a result.

In the light of the above it is therefore recommended that the proposed development actions be allowed to continue. However the subterranean presence of archaeological and/or historical sites, features or artifacts are always a distinct possibility and this aspect needs to be kept in mind at all times. Care should therefore be taken during any development activities that if any of these are accidentally discovered, a qualified archaeologist be called in to investigate.

8. REFERENCES

Aerial views of the study area: Google Earth 2013 – Image Date 6/6/2012.

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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.