

7 October 2014

**Att:** Mr Philip Hine

Archaeological Heritage Impact Assessor  
South African Heritage Resources Agency  
PO Box 4637  
Cape Town  
8000



**By email:**

Dear Mr Salomon,

**REQUEST FOR EXEMPTION FROM AN ARCHAEOLOGICAL PALAEOLOGICAL IMPACT STUDY:  
DEVELOP TWO PARKS IN GAMAGARA MUNICIPALITY. ONE IN OLIFANTSHOEK ERF NO 3044  
(DIEPKLOOF) AND ONE IN DIBENG ERF 1457, NORTHERN PROVINCE – CASEID:5816**

## **1. Introduction**

Your letter dated 7 August 2014, responding to a notification of development of the proposed Develop two parks in Gamagara Municipality. One in Olifantshoek erf no 3044 (Diepkloof) and one in Dibeng erf 1457, refers.

That letter required that a heritage specialist be appointed to undertake either a Phase 1 Archaeological Impact Assessment or to send a letter indicating that there is no necessity for any further assessment, due to the property being very small or disturbed.

Accordingly, this letter serves to request that the two projects be exempted from the requirement of a full Phase 1 AIA/HIA, due to the properties being disturbed previously to a considerable extent.

## **2. Description of the receiving environment**

Both site are located in the Gamagara Municipality of the Northern Cape Province.

### *2.1. Dibeng Park*

The proposed Dibeng park is situated on the Erf 1457 on the eastern periphery of Dibeng town just south of the Deben Stadium. The site shares its eastern boundary with the Dibeng

municipal Cemetery. The extent of the site is 9000m<sup>2</sup>

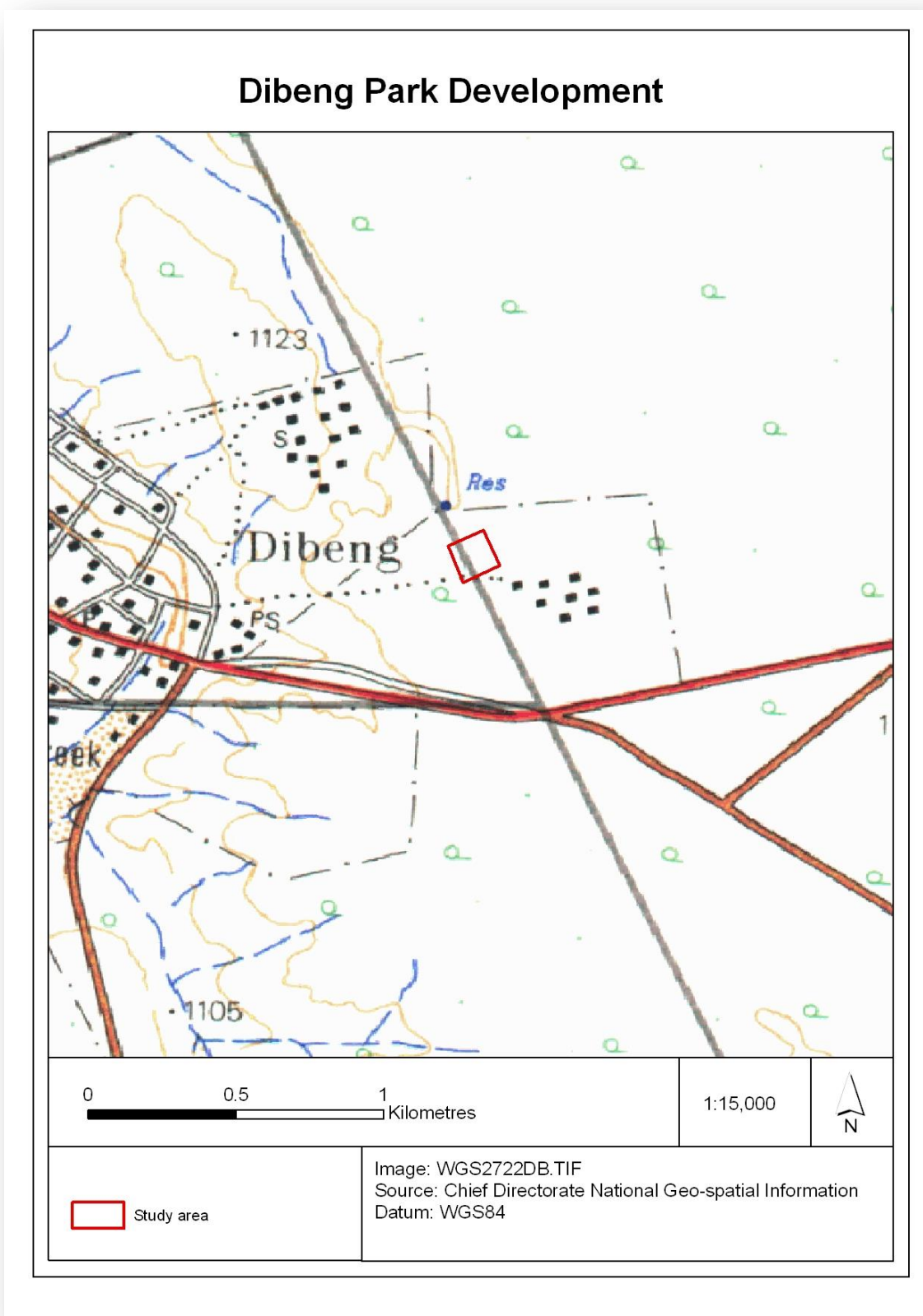


Figure 1 – Locality plan of Dibeng park

## 2.2. Diepkloof park - Olifantshoek

The proposed Diepkloof Park is situated on the Erf 3044 on the eastern periphery of Olifantshoek town on Ikanyeng street. The site shares its eastern boundary with the Debing municipal Cemetery. The extent of the site is 9000m<sup>2</sup>

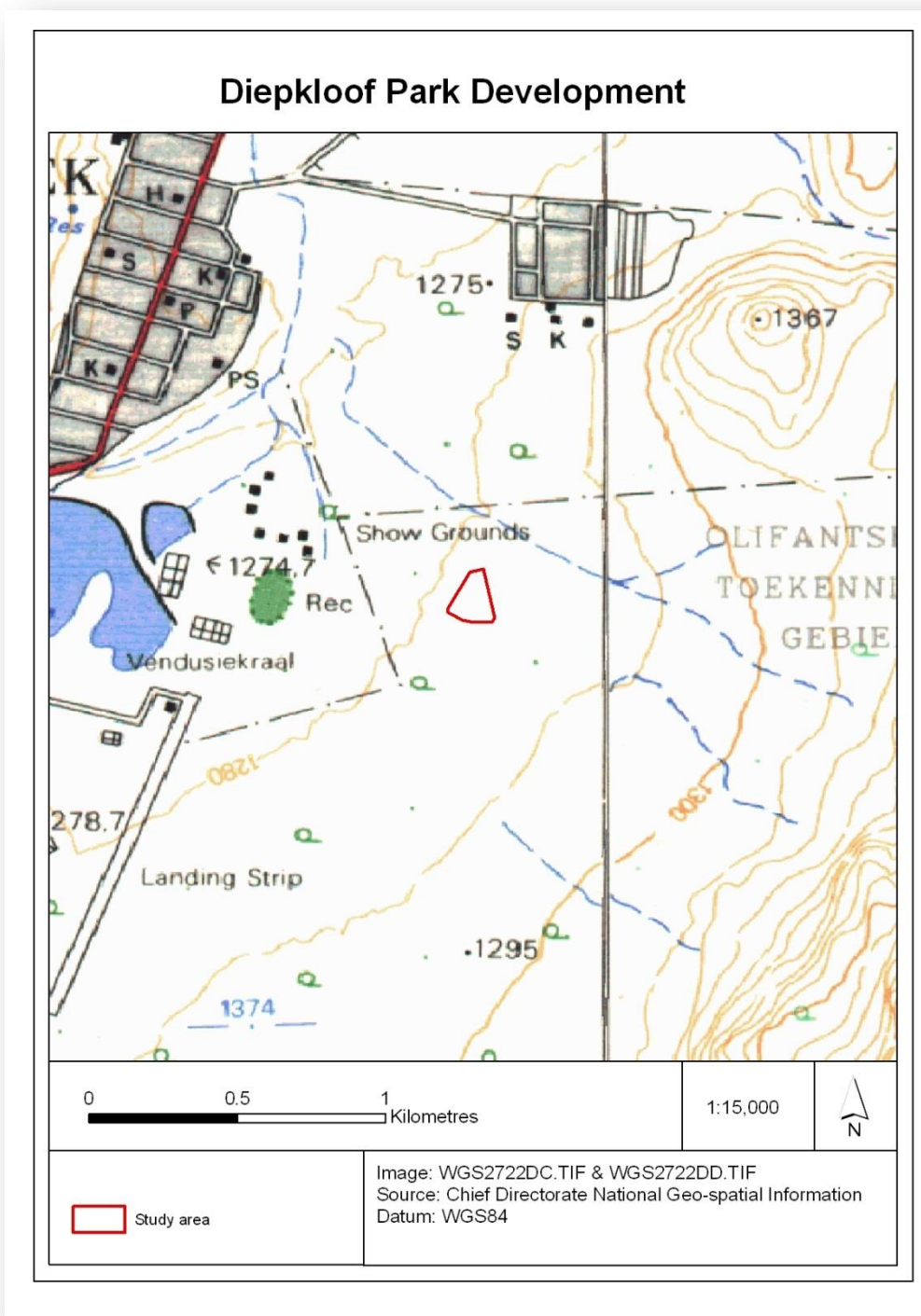


Figure 2 – Locality plan showing the two study areas

### **3. Contractor**

SAJA Consulting and Construction PTY(Ltd)

P.O.Box 7086, ORANJEKRUIN 8807

Contact: Rudolph Saal :

Mobile: 082 342 7450

Email: construction@sajacon.co.za/rbfsaal@telkomsa.net

### **4. Project description**

The project development on both parks (Dibeng Park - **Figure 3**; Diepkloof Park - **Figure 4**) will be the development of a new recreational park for the affected communities. The infrastructure development will consist:

1. Palisade fencing
2. Irrigation system
3. Electrical reticulation for ablution and lights in parks
4. Ablution facilities with area of 23 m<sup>2</sup>
5. LED Lights at entrances, and picnic sites
6. Six picnic sites in each park consisting of benches, tables and barbecue facilities built from bricks and concrete
7. 30 trees will be planted in every park
8. Paved walkways will be constructed to connect the picnic sites and ablution blocks
9. Bins for litter will be installed
10. Play area developed and play equipment installed

**Excavations will not be done deeper than 50 cm and will not be done in to bedrock.**

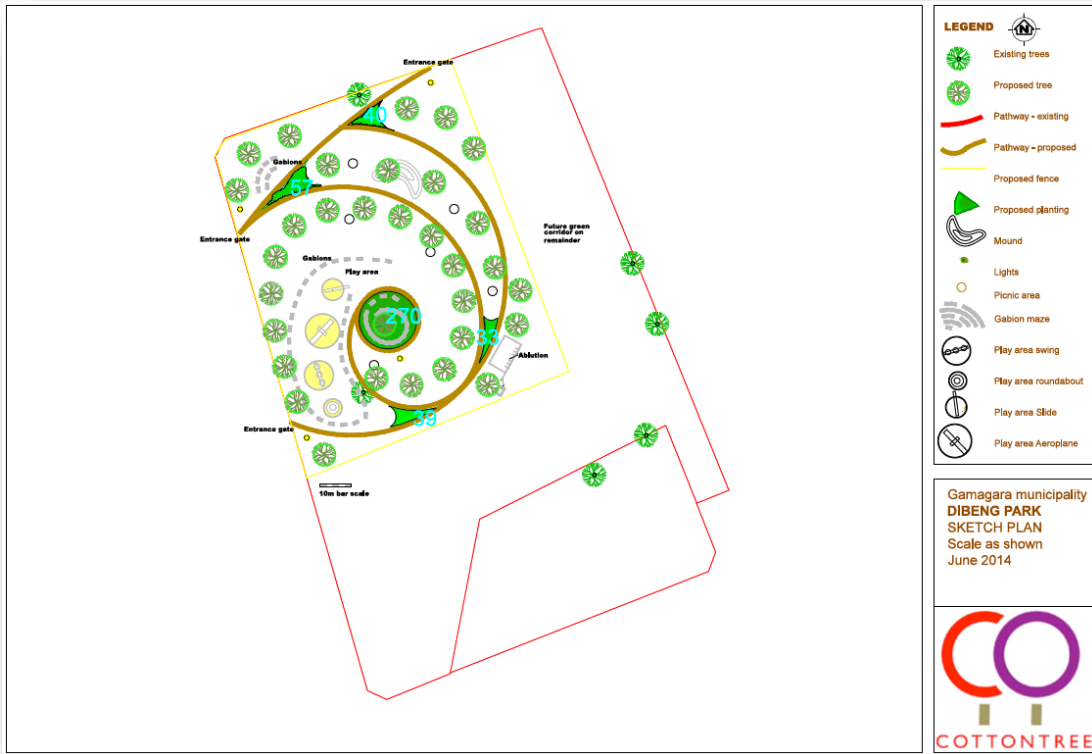


Figure 3 – Layout plan of Dibeng Park

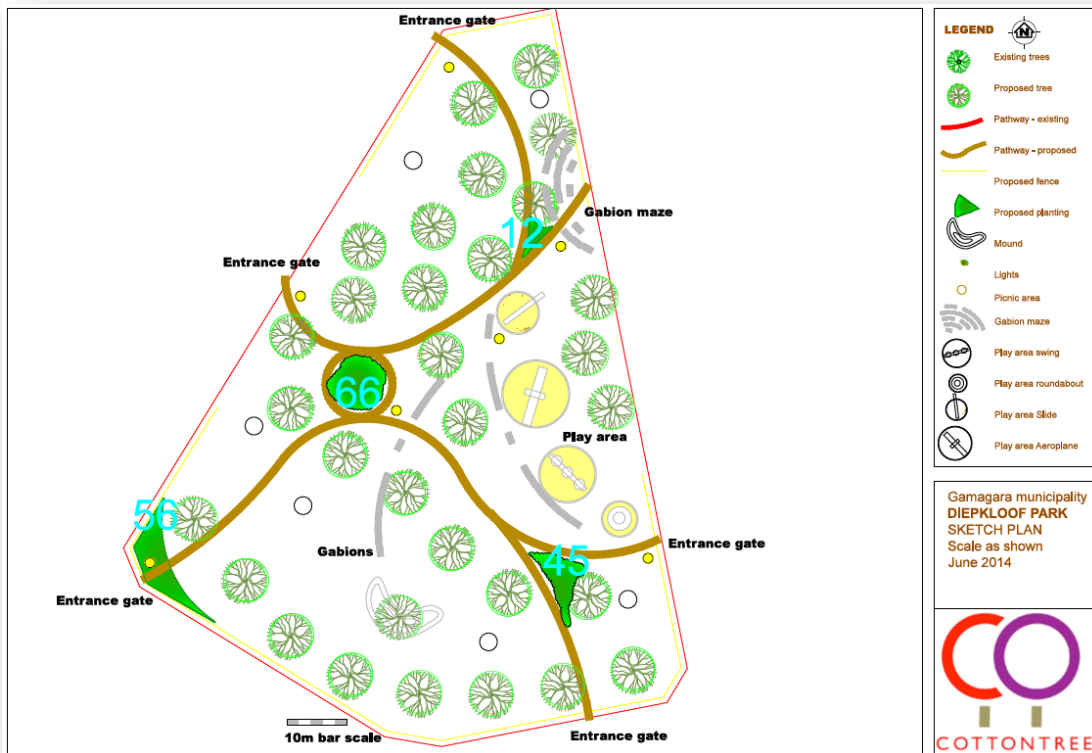


Figure 4 – Layout plan of Diepkloof Park

## 5. Archaeological and heritage potential

### 5.1. Previous studies conducted in the Diepkloof Park area:

Van Schalkwyk, J. 2010. Archaeological Impact Survey Report for the Proposed Township Development in Olifantshoek, Northern Cape Province;

Beaumont, P.B. 2007. Phase 1 Heritage Impact Assessment Report on a 15 ha of the Allotment Area that borders on the Skerpdraai and Diepkloof Townships at Olifantshoek, Gamagara Municipality. Northern Cape Province;

Beaumont (2007) identified low density occurrences of Early Stone Age material; he further indicated that the Hutton sand deposits vary in depth between 1 and 2 meters with deeper deposits closer to the lower lying drainage areas.

Van Schalkwyk (2010) identified a cemetery consisting of 4 graves approximately 700 meters to the north of the current study area.

### 5.2. Previous studies conducted in the Dibeng Park area:

De Jong, R.C. 2010. Final Heritage Impact Assessment Report: Proposed Land Use Change to Provide for the extension of the town of Dibeng, Gamagara Local Municipality, Northern Cape Province

Van Schalkwyk, J. 2010. Archaeological Impact Survey Report for the Proposed Township Development in Dibeng, Northern Cape Province;

Pether, J. 2011. Brief Palaeontological Impact Assessment (Desktop Study) for the Proposed Kathu & Sishen Solar Energy Facilities, Portions 4 & 6 of the Farm Wincanton 472, Kuruman District, Northern Cape.

The two reports (De Jong and van Schalkwyk) listed above only lists the current cemetery bordering the proposed Dibeng Park. No further reference to any heritage related sites are made in the reports.

Although Pether (2011) rates the palaeontological sensitivity as low he recommended that the developer make provision for actions to be taken during construction activity if palaeontological material is uncovered.

Gordonia Formation (Qs) KALAHARI GROUP plus SURFACE CALCRETES (TI / Qc)	Mainly aeolian sands plus minor fluvial gravels, freshwater pan deposits, calcretes  PLEISTOCENE to RECENT	Calcretised rhizoliths & termitaria, ostrich egg shells, land snail shells, rare mammalian and reptile (e.g. tortoise) bones, teeth  freshwater units associated with diatoms, molluscs, stromatolites etc	LOW	Any substantial fossil finds to be reported by ECO to SAHRA
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Figure 4 – Palaeontological sensitivity matrix (Almond, 2013)

## 6. Palaeontological Sensitivity

### 6.1. Diepkloof Park

The SAHRIS Palaeontological sensitivity map (**Figure 6**) rates the palaeontological sensitivity as moderate and requires at a minimum a palaeontological study

### 6.2. Dibeng Park

The SAHRIS Palaeontological sensitivity map (**Figure 7**) rates the palaeontological sensitivity as moderate and requires at a minimum a palaeontological study. A palaeontological desktop assessment done by Pether (2010) in the area of the Dibeng Park indicates that the area is underlain by red Aeolian sands of the Godonia Formation.

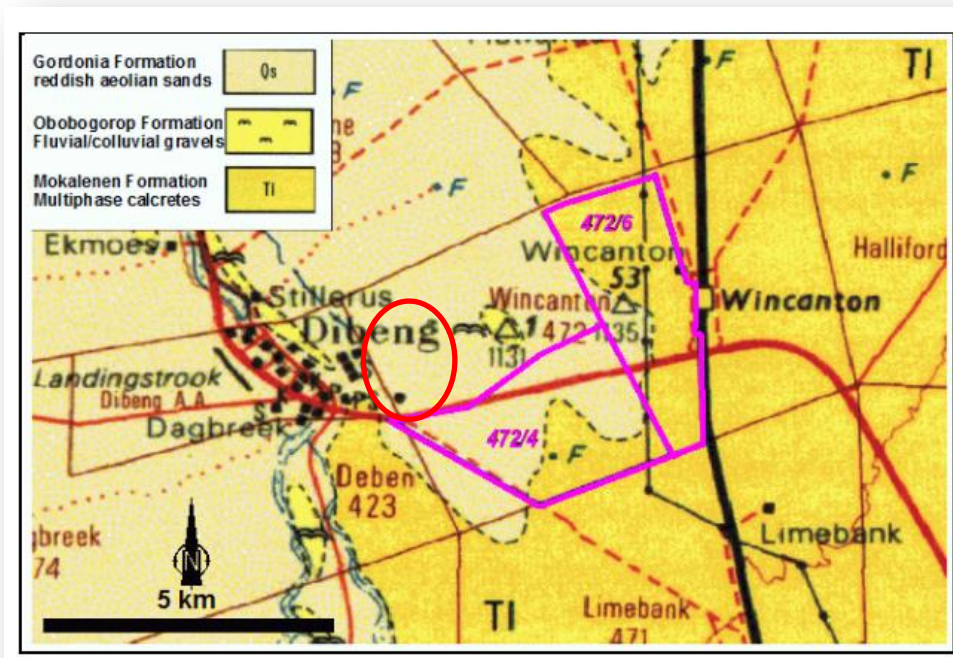


Figure 5 – Geological Map of the Debing Park area (Study area in red) (Pether, 2011)

The site visit has however indicated that the no rock outcrops area present in any of the sites,

the Hutton sand deposits are in both areas deeper than 1 m and the nature of the activity will not affect any bedrock.

We recommend that no further palaeontological work will be required, but that the management guidelines supplied in Annexure A are included as part of the construction EMP.

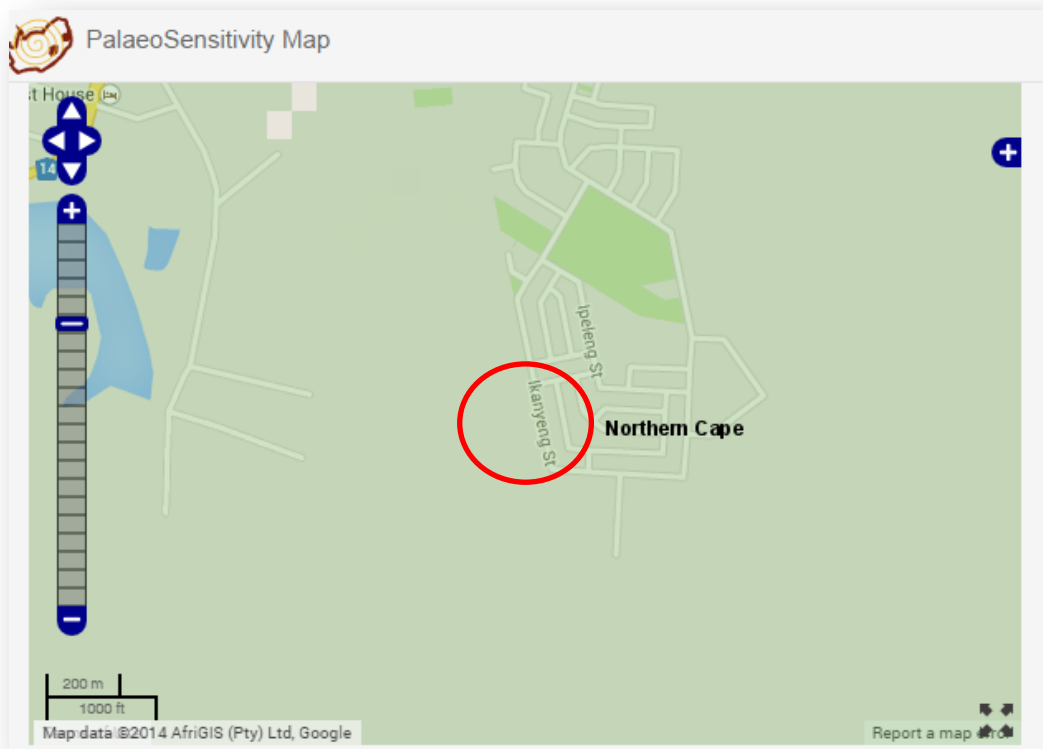


Figure 6 – Layout plan of Diepkloof Park (Study area in red)



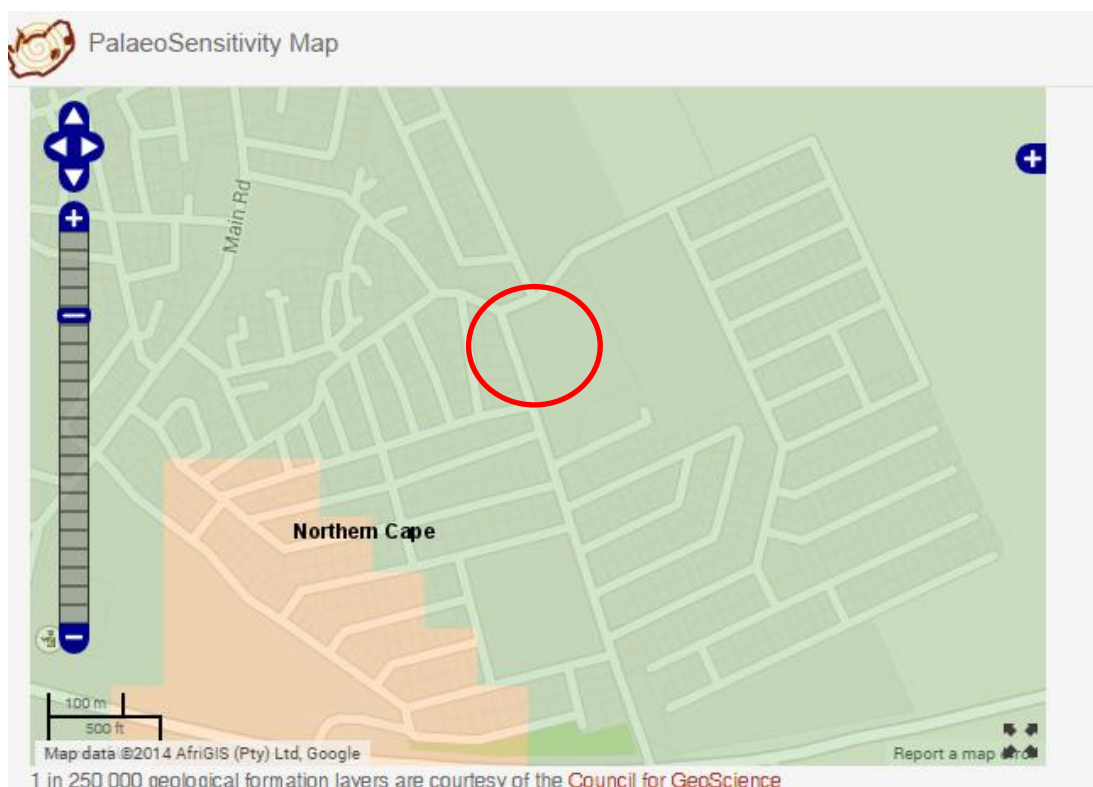


Figure 7 – Layout plan of Dibeng Park (Study area in red)

## 7. Findings of Site Visit

The two sites were visited by an archaeologist of PGS on 22 August 2014. The aim of the site visit was to determine the extent of the development, identify any possible heritage features and the need for further heritage work on the property.

### 7.1. Dibeng Park in Dibeng - 9000 m<sup>2</sup>

The Dibeng Park will be developed on a disturbed piece of council land that is currently subject to illegal dumping and has been totally degraded by human activity over the past 20 years. The site shares its eastern boundary with the Dibeng cemetery. No fence divides the two sites.

The field work did not identify any heritage significant structures on site, and no graves or spill over of graves from the cemetery were identified on site. No outcrops, due to a thick layer of soil, were identified during the field work that could assist in the identification of palaeontological material.

It is however recommended that a barricade is erected prior to construction between the cemetery fence and the construction activities. The cemetery needs to be handled as a no-

go area during construction activities in the park. A 30 meter green corridor is planned between the park infrastructure and the cemetery (**Figure 3**) and thus no further mitigation measures for management of impacts during construction is required.



*Figure 8 – Street with development area for park on left hand side*



*Figure 11 – View of southern section of the proposed park*



*Figure 9 – Photos of cemetery taken from wall bordering the park*



*Figure 12 – Large scale dumping of building rubble on site*



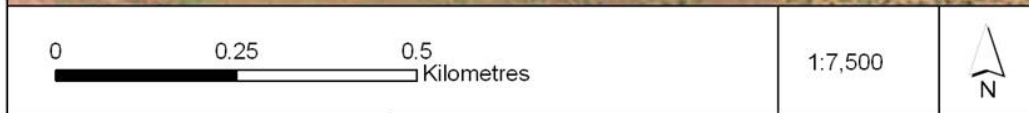
*Figure 10 – Evidence of building rubble dumped on site*



*Figure 13 – View of south-eastern section of development area (dark line on left is the cemetery)*

wall.

### Dibeng Park Development



 Study area  
 Track log

Image: 2722D.jp2  
Source: Spot Image / CSIR  
Datum: WGS84

Figure 14 – Dibeng Park with tracklogs for fieldwork

## 7.2. Diepkloof in Olifantshoek-6915 m<sup>2</sup>

The Diepkloof Park will be developed on a disturbed piece of council land that was previously occupied by an informal settlement (Evident from historic Google Earth Imagery - **Figure 15**) subject to illegal dumping and has been totally degraded by human activity over the past 20 years. The site shares its eastern boundary with the Dibeng cemetery. No fence divides the two sites.



Figure 15 – Informal housing visible from Google earth photos

The field work did not identify any heritage significant structures on site, and no graves or spill over of graves from the cemetery were identified on site. No outcrops, due to a thick

layer of alluvial Hutton sand deposit, were identified during the field work that could assist in the identification of palaeontological material.

No further mitigation measures for management of impacts during construction are required.



*Figure 16 – View of site toward north from the southern boundary*



*Figure 19 – View of southern section of the proposed park*



*Figure 17 – Foundations and remains of informal housing*



*Figure 20 – Rubbish middens of recent informal housing*



*Figure 18 – general view of disturbed site*



*Figure 21 – View of site from Ikanyeng Street*

## Diepkloof Park Development



0 0.25 0.5  
Kilometres

1:7,500



 Study area

 Track log

Image: 2722D.jp2  
Source: Spot Image / CSIR  
Datum: WGS84

Figure 22 – Diepkloof Park with tracklogs of field work

## 8. Conclusion

Based on the field work findings it is evident that the sites for the two proposed parks are heavily degraded by human activity in recent years. No heritage sites were identified within the two sites.

The cemetery bordering the Dibeng Park is already fenced and the development of a park on its border can only assist in the better management of the cemetery in future.

Therefore, no negative impacts on heritage resources are foreseen and no mitigation is required.

### 1. Recommendations

With regard to the proposed development, the following recommendations are made:

1. No further heritage impact assessment of the study area is required.
2. No archaeological mitigation is required.
3. We recommend that no further palaeontological work will be required, but that the management guidelines supplied in Annexure A are included as part of the construction EMP.
4. In the unlikely event of any unmarked human burials, burial pits, potsherds or stone tools being uncovered during earthworks, these must be reported immediately to the South African Heritage Resources Agency (Mr Philip Hine 021 462 4502).

Should you have any queries, please contact Wouter Fourie (email: [wouter@gravesolutions.co.za](mailto:wouter@gravesolutions.co.za); tel: (012) 332 5305).

Yours Sincerely



**Wouter Fourie**

**Director**

**PGS Heritage**

*Accredited professional Heritage Practitioner (APHP), Accredited Professional Archaeologist (ASAPA)*



**References**

Almond, J.E. 2013. Palaeontological specialist assessment: desktop study for the Proposed 16 Mtpa Expansion of Transnet's Existing Manganese Ore Export Railway Line & Associated Infrastructure between Hotazel and the Port of Ngqura, Northern & Eastern Cape.

Beaumont, P.B. 2007. Phase 1 Heritage Impact Assessment Report on a 15 ha of the Allotment Area that borders on the Skerpdraai and Diepkloof Townships at Olifantshoek, Gamagara Municipality. Northern Cape Province;

De Jong, R.C. 2010. Final Heritage Impact Assessment Report: Proposed Land Use Change to Provide for the extension of the town of Dibeng Gamagara Local Municipality Northern Cape Province

Pether, J. 2011. Brief Palaeontological Impact Assessment (Desktop Study) for the Proposed Kathu & Sishen Solar Energy Facilities Portions 4 & 6 of the Farm Wincanton 472, Kuruman District Northern Cape.

Van Schakwyk, J. 2010. Archaeological Impact Survey Report for the Proposed Township Development in Olifantshoek, Northern Cape Province;

Van Schalkwyk, J. 2010. Archaeological Impact Survey Report for the Proposed Township Development in Dibeng, Northern Cape Province;

**Annexure A**  
**Heritage Management Guidelines**

## 1 HERITAGE MANAGEMENT GUIDELINES

### 1.1 General Management Guidelines

1. The National Heritage Resources Act (Act 25 of 1999) states that, any person who intends to undertake a development categorised as-
  - (a) the construction of a road, wall, transmission line, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length;
  - (b) the construction of a bridge or similar structure exceeding 50m in length;
  - (c) any development or other activity which will change the character of a site-
    - (i) exceeding 5 000 m<sup>2</sup> in extent; or
    - (ii) involving three or more existing erven or subdivisions thereof; or
    - (iii) involving three or more erven or divisions thereof which have been consolidated within the past five years; or
    - (iv) the costs of which will exceed a sum set in terms of regulations by SAHRA or a provincial heritage resources authority;
  - (d) the re-zoning of a site exceeding 10 000 m<sup>2</sup> in extent; or
  - (e) any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority, must at the very earliest stages of initiating such a development, notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development.

**In the event that an area previously not included in an archaeological or cultural resources survey is to be disturbed, the SAHRA needs to be contacted. An enquiry must be lodged with them into the necessity for a Heritage Impact Assessment.**

2. In the event that a further heritage assessment is required it is advisable to utilise a qualified heritage practitioner, preferably registered with the Cultural Resources Management Section (CRM) of the Association of Southern African Professional Archaeologists (ASAPA).

This survey and evaluation must include:

- (a) The identification and mapping of all heritage resources in the area affected;
- (b) An assessment of the significance of such resources in terms of the heritage assessment criteria set out in section 6 (2) or prescribed under section 7 of the National Heritage Resources Act;
- (c) An assessment of the impact of the development on such heritage resources;
- (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;

- (e) The results of consultation with communities affected by the proposed development and other interested parties regarding the impact of the development on heritage resources;
  - (f) If heritage resources will be adversely affected by the proposed development, the consideration of alternatives; and
  - (g) Plans for mitigation of any adverse effects during and after the completion of the proposed development.
3. It is advisable that an information section on cultural resources be included in the SHEQ training given to contractors involved in surface earthmoving activities. These sections must include basic information on:
- a. Heritage;
  - b. Graves;
  - c. Archaeological finds; and
  - d. Historical Structures.

This module must be tailor made to include all possible finds that could be expected in that area of construction.

Possible finds include:

- a. Open air Stone Age scatters, disturbed during vegetation clearing. This will include stone tools.
  - b. Palaeontological deposits such as bone, and teeth in fluvial riverbank deposits.
4. In the event that a possible find is discovered during construction, all activities must be halted in the area of the discovery and a qualified archaeologist contacted.
5. The archaeologist needs to evaluate the finds on site and make recommendations towards possible mitigation measures.
6. If mitigation is necessary, an application for a rescue permit must be lodged with SAHRA.
7. After mitigation, an application must be lodged with SAHRA for a destruction permit. This application must be supported by the mitigation report generated during the rescue excavation. Only after the permit is issued may such a site be destroyed.
8. If during the initial survey sites of cultural significance are discovered, it will be necessary to develop a management plan for the preservation, documentation or destruction of such a site. Such a program must include an archaeological/palaeontological monitoring programme, timeframe and agreed upon schedule of actions between the company and the archaeologist.
9. In the event that human remains are uncovered, or previously unknown graves are discovered, a qualified archaeologist needs to be contacted and an evaluation of the finds made.

10. If the remains are to be exhumed and relocated, the relocation procedures as accepted by SAHRA need to be followed. This includes an extensive social consultation process.

*Table 1: Roles and responsibilities of archaeological/palaeontological and heritage management when heritage resources are discovered during operations*

ROLE	RESPONSIBILITY	IMPLEMENTATION
A responsible specialist needs to be allocated and should attend all relevant meetings, especially when changes in design are discussed, and liaise with SAHRA.	The client	Archaeologist and a competent archaeology support team
If chance finds and/or graves or burial grounds are identified during construction or operational phases, a specialist must be contacted in due course for evaluation.	The client	Archaeologist and a competent archaeology support team
Comply with defined national and local cultural heritage regulations on management plans for identified sites.	The client	Environmental Consultancy and the Archaeologist
Consult the managers, local communities and other key stakeholders on mitigation of archaeological/palaeontological sites, when discovered.	The client	Environmental Consultancy and the Archaeologist
Implement additional programs, as appropriate, to promote the safeguarding of our cultural heritage. (i.e. integrate the archaeological/palaeontological components into the employee induction course).	The client	Environmental Consultancy and the Archaeologist,
If required, conservation or relocation of burial grounds and/or graves according to the applicable regulations and legislation.	The client	Archaeologist, and/or competent authority for relocation services
Ensure that recommendations made in the Heritage Report are adhered to.	The client	The client

Provision of services and activities related to the management and monitoring of significant archaeological/palaeontological sites (when discovered) The client with the specialist needs to agree on the scope and activities to be performed	The client	Environmental Consultancy and the Archaeologist
When a specialist/archaeologist has been appointed for mitigation work on discovered heritage resources, comprehensive feedback reports should be submitted to relevant authorities during each phase of development.	Client and Archaeologist	Archaeologist

## 1.2 All phases of the project

### 1.2.1 Archaeology and Palaeontology

The project will encompass a range of activities during the drilling phase, including ground clearance, establishment of construction camps area and small scale infrastructure development associated with the project/operations.

It is possible that cultural material will be exposed during operations and may be recoverable, but this is the high-cost front of the operation, and so any delays should be minimised. Development surrounding infrastructure and construction of facilities results in significant disturbance, but construction trenches do offer a window into the past and it thus may be possible to rescue some of the data and materials. It is also possible that substantial alterations will be implemented during this phase of the project and these must be catered for. Temporary infrastructure is often changed or added to during the subsequent history of the project. In general these are low impact developments as they are superficial, resulting in little alteration of the land surface, but still need to be catered for.

During the construction phase, it is important to recognise any significant material being unearthed, and to make the correct judgment on which actions should be taken. In the event that possible heritage resources are identified a qualified archaeologist/palaeontologist must be contacted to evaluate the finds and make recommendations on the mitigation required.

In addition, feedback reports can be submitted by the archaeologist to the client and SAHRA to ensure effective monitoring. This archaeological/palaeontological monitoring and feedback strategy should be incorporated into the Environmental Management Plan (EMP) of the project. Should an archaeological/palaeontological site or cultural material be discovered during construction (or operation), such as burials or grave sites, the project needs to be able to call on a qualified expert to make a decision on what is required and if it is necessary to carry out emergency recovery. SAHRA would need to be informed and may give advice on procedure. The developers therefore should have some sort of contingency plan so that operations could move elsewhere temporarily while the material and data are recovered. The project thus needs to have an archaeologist/palaeontologist available to do such work. This provision can be made in an archaeological/palaeontological monitoring programme.

In the case where archaeological/palaeontological material is identified during construction the following measures must be taken:

- Upon the accidental discovery of archaeological material, a buffer of at least 20 meters should be implemented.
- If archaeological material is accidentally discovered during construction, activities must cease in the area and a qualified archaeologist be contacted to evaluate the find. To remove the material permit must be applied for from SAHRA under Section 35 of the NHRA.

### 1.2.2 Graves

In the case where a grave is identified during construction the following measures must be taken:

- Upon the accidental discovery of graves, a buffer of at least 20 meters should be implemented.
- If graves are accidentally discovered during construction, activities must cease in the area and a qualified archaeologist be contacted to evaluate the find. To remove the remains a permit must be applied for from SAHRA (Section 36 of the NHRA) and other relevant authorities (National Health Act and its regulations). The local South African Police Services must immediately be notified of the find.
- Where it is recommended that the graves be relocated, a full grave relocation process that includes comprehensive social consultation must be followed.

The grave relocation process must include:

- i. A detailed social consultation process, that will trace the next-of-kin and obtain their consent for the relocation of the graves, that will be at least 60 days in length;

- ii. Site notices indicating the intent of the relocation;
- iii. Newspaper notices indicating the intent of the relocation;
- iv. A permit from the local authority;
- v. A permit from the Provincial Department of Health;
- vi. A permit from the South African Heritage Resources Agency, if the graves are older than 60 years or unidentified and thus presumed older than 60 years;
- vii. An exhumation process that keeps the dignity of the remains intact;
- viii. The whole process must be done by a reputable company that is well versed in relocations;
- ix. The exhumation process must be conducted in such a manner as to safeguard the legal rights of the families as well as that of the developing company.