A LETTER OF RECOMMENDATION (WITH CONDITIONS) FOR THE EXEMPTION OF A FULL PHASE 1 ARCHAEOLOGICAL IMPACT ASSESSMENT FOR THE PROPOSED LANGBOS BULK WATER SUPPLY SERVICE AND WASTE WATER SERVICE PIPELINES, SUNDAY'S RIVER VALLEY MUNICIPALITY, CACADU DISTRICT MUNICIPALITY, EASTERN CAPE PROVINCE.

- Prepared for: SRK Consulting PO Box 21842 Port Elizabeth 6000 Tel: 041 509 4800 Fax: 041 509 4850 Contact person: Mr Luc Strydom Email: LStrydom@srk.co.za
- Compiled by: Ms Celeste Booth t/a Booth Heritage Consulting 5 Queens Terrace 12 Chapel Street Grahamstown 6139 Tel: 082 062 4655 Email: cbooth670@gmail.com Contact person: Ms Celeste Booth

Date: November 2014

#### TABLE OF CONTENTS

1. EXECUTIVE SUMMARY	3.
1.1. The type of development	3.
1.2. Developer	3.
1.3. Consultant	4.
1.4. Terms of reference	4.
1.5. Brief Summary of Findings	4.
2. DESCRIPTION OF THE PROPERTY	4.
2.1. Location data	4.
2.2. Мар	5.
3. ARCHAEOLOGICAL INVESTIGATION	11.
3.1. Methodology	11.
3.2. Results of Survey	11.
4. RELEVANT ARCHAEOLOGICAL IMPACT ASSESSMENTS	19.
5. REFERENCES	20.
6. LETTER OF RECOMMENDATION	20.
7. RECOMMENDATIONS	21.
8. GENERAL REMARKS AND CONDITIONS	22.

### LIST OF FIGURES

Figure 1. 1:50 000 topographic maps 3325BC COERNEY and 3325DA ADDO showing the location<br/>of the proposed area for the proposed low-cost housing development.6.Figure 2. Aerial view showing the location of the proposed Langbos bulk water supply services and<br/>waste water service pipelines within proximity to towns in the wider region (red block).7.Figure 3. Close-up aerial view showing the location of the proposed Langbos bulk water supply<br/>services and waste water service pipelines8.

Figure 4. Map showing the location of the sewer alignment, the water rising main alignment, and cadastral boundaries for the proposed Langbos bulk water supply services and waste water service pipelines (courtesy of SRK Consulting). 9.

Figure 5. View of the area that has been disturbed by the construction of the canal, the Langbos Township, and human activities. 11.

Figure 6.view of the densely covered grass vegetation that occurs throughout most of the proposed route.

11.

12.

Figure 7. View of the densely covered vegetation throughout the route as well as other disturbances such as footpaths, the adjacent gravel access road, power lines and fences.

1

Figure 8. View of the adjacent area showing the dense vegetation cover and overgrown building rubble. 12. Figure 9. View of the proposed route that has been heavily disturbed by the construction of the railway line, power lines, and the construction of the gravel service road. 13. Figure 10. View of a water catchment area along the proposed route. 13. Figure 11. General view of the proposed route and exposed surface areas investigated for archaeological heritage remains. 14. Figure 12. Example of manholes indicating existing underground pipe line systems. 14. Figure 13. View of the remains of buildings adjacent to the proposed pipeline route. 15. Figure 14. Degraded built environment structure on a dam near situated adjacent to the proposed pipeline route and near to the R335 road. 15. Figure 15. View of the degraded built environment structure situated adjacent to the proposed pipeline route (BE1). 16. Figure 16. View of the degraded built environment structure situated adjacent to the proposed pipeline route (BE2). 16. Figure 17. Example of retaining walls / weirs located along the proposed pipeline route. 17. Figure 18. View of a narrow cement canal located along the route for the proposed pipeline. 17. Figure 19.View of a contemporary built environment structure situated along the route for the proposed pipeline. 18.

Figure 20. View of the memorial wreath located next to the railway line along the proposed route for the proposed pipeline.

18.

#### LIST OF TABLES

TABLE 1: GPS CO-ORDINATES AND DESCRIPTIONS FOR THE PROPOSED LANGBOS BULK WATERSUPPLY SERVICE AND WASTE WATER SERVICE PIPELINES, SUNDAY'S RIVER VALLEYMUNICIPALITY, CACADU DISTRICT MUNICIPALITY, EASTERN CAPE PROVINCE.5.

### LIST OF APPENDICES

APPENDIX A: HERITAGE LEGISLATIVE REQUIREMENTS	23.
APPENDIX B: GRADING SYSTEM	26.
APPENDIX C: IDENTIFICATION OF ARCHAEOLOGICAL FEATURES AND MATERIAL	
FROM INLAND AREAS: guidelines and procedures for developers	27.

# A LETTER OF RECOMMENDATION (WITH CONDITIONS) FOR THE EXEMPTION OF A FULL PHASE 1 ARCHAEOLOGICAL IMPACT ASSESSMENT FOR THE PROPOSED LANGBOS BULK WATER SUPPLY SERVICE AND WASTE WATER SERVICE PIPELINES, SUNDAY'S RIVER VALLEY MUNICIPALITY, CACADU DISTRICT MUNICIPALITY, EASTERN CAPE PROVINCE.

**NOTE:** The archaeological impact assessment survey was conducted as a requirement of the National Heritage Resources Act 1999, Section 38 (1)(a):

38. (1) Subject to the provisions of subsections (7), (8) and (9), any person who intends to undertake a development categorized as –

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

This report follows the minimum standard guidelines required by the South African Heritage Resources Agency (SAHRA) and the Eastern Cape Provincial Heritage Resources Agency (ECPHRA) for compiling a Letter of Recommendation for the Exemption of a Full Phase 1 Archaeological Impact Assessment (AIA).

# **1. EXECUTIVE SUMMARY**

# **1.1.** The type of development:

Bulk water supply service and waste water service pipelines, Addo, Sunday's River Valley Municipality, Cacadu District Municipality, Eastern Cape Province.

The proposed development aims to provide bulk water supply services and waste water services for the Langbos community located north of the town of Addo within the Sunday's River Valley Municipality. The project will include the installation of a bulk water supply pipeline and reservoir for the Langbos area as well as the installation of a waste water pump station and outfall pipeline.

# 1.2. Developer:

Sunday's River Valley Municipality P.O.Box 47, Kirkwood, 6120 042-230-7700 Contact Person: Mpumelelo Nzuzo Email: nzuzomb@gmail.com

### 1.3. Consultant:

SRK Consulting PO Box 21842 Port Elizabeth 6000 Tel: 041 509 4800 Fax: 041 509 4850 Contact person: Mr Luc Strydom Email: LStrydom@srk.co.za

### **1.4. Terms of reference**

The purpose of the study was to conduct a phase 1 archaeological impact assessment (AIA) for the proposed bulk water supply service and waste water service pipelines, Addo, Sunday's River Valley Municipality, Cacadu District Municipality, Eastern Cape Province.

The survey was conducted to:

- establish the range and importance of the exposed and *in situ* archaeological heritage materials remains, sites, and features;
- establish the potential impact of the development; and
- make recommendations to minimize possible damage to the archaeological heritage.

### **1.5. Brief Summary of Findings**

Degraded built environment features were observed along the route as well as one memorial wreath situated along the railway track of the proposed project route.

No archaeological heritage remains, features, or sites were documented within the proposed area for the development.

### **2. DESCRIPTION OF THE PROPERTY**

#### 2.1. Location data

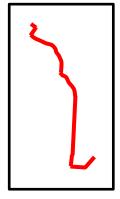
The bulk water supply pipeline will run from the existing water treatment works at Caesar Dam, located in the town of Addo to Langbos along existing servitudes. The waste water outfall pipeline will run from Langbos to an existing pump station, south of the town of Addo, also along existing servitudes. The extent of the area to be developed is about 9 km.

#### 2.2. Map

1:50 000 Maps: 3225BC COERNEY (version 1991) and 3225DA ADDO (version 1991) (Figure 1).

TABLE 1: GPS CO-ORDINATES AND DESCRIPTIONS FOR THE PROPOSED LANGBOS BULK WATER SUPPLY SERVICE AND WASTE WATER SERVICE PIPELINES, SUNDAY'S RIVER VALLEY MUNICIPALITY, CACADU DISTRICT MUNICIPALITY, EASTERN CAPE PROVINCE.

REFERENCES	DESCRIPTION	CO-ORDINATES	HERITAGE GRADING
LP1	Begin of proposed pipeline near Langbos	33°29'32.90"S; 25°41'09.20"E	N/A
LP2	End of proposed pipeline	33°32′41.60″S; 25°41′47.90″E	N/A
LP3	End of proposed pipeline near Caesar's Dam	33°32′27.60″S; 25°42′35.50″E	N/A
LPBE1	Degraded built environment structure	33°30′21.90″S; 25°41′44.00″E	N/A
LPBE2	Degraded built environment structure	33°30′22.20″S; 25°41′44.90″E	N/A
LPBE3	Contemporary built environment structure	33°32′30.60″S; 25°41′53.40″E	N/A
LPMW	Memorial wreath	33°32′15.70″S; 25°41′59.50″E	High Significance



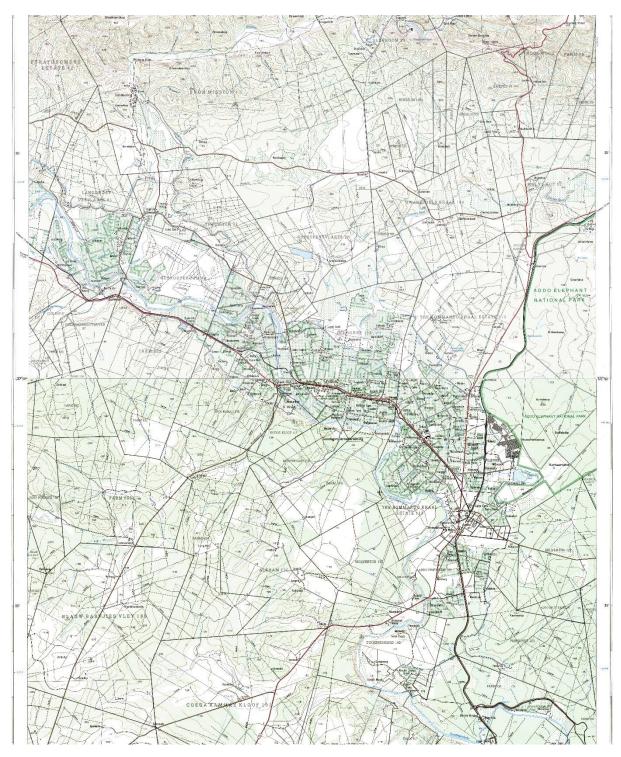


Figure 1. 1:50 000 topographic maps 3325BC COERNEY and 3325DA ADDO showing the location of the proposed area for the proposed low-cost housing development.

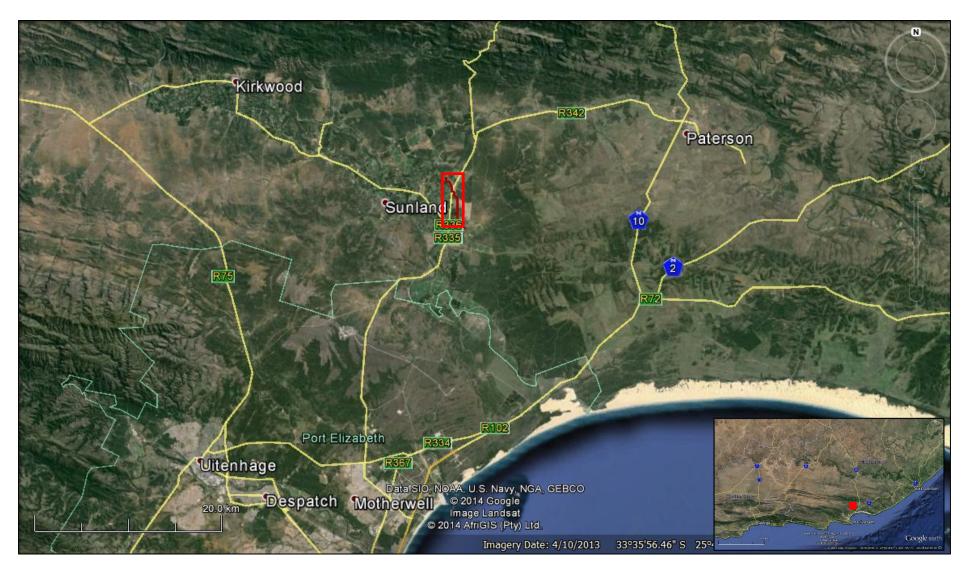


Figure 2. Aerial view showing the location of the proposed Langbos bulk water supply services and waste water service pipelines within proximity to towns in the wider region (red block).

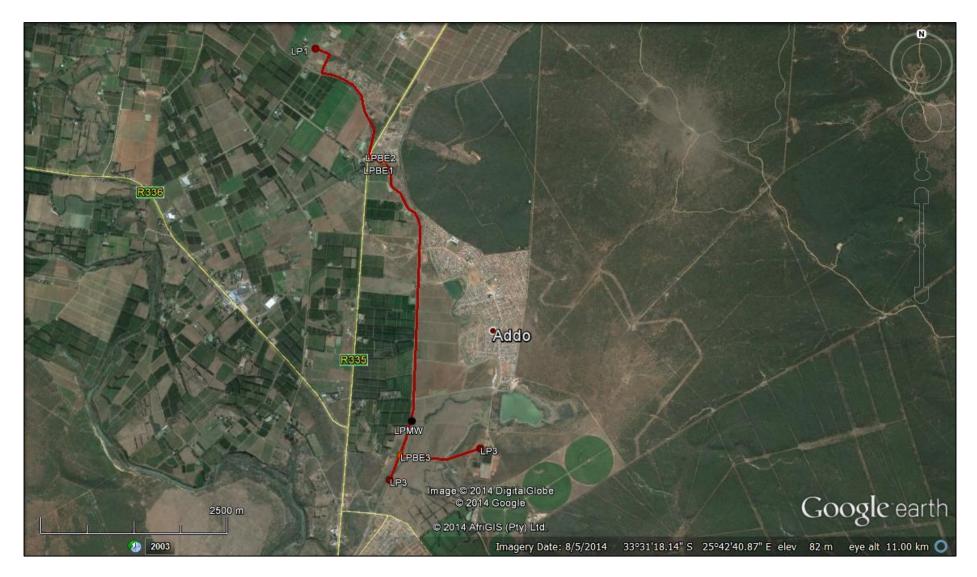


Figure 3. Close-up aerial view showing the location of the proposed Langbos bulk water supply services and waste water service pipelines.

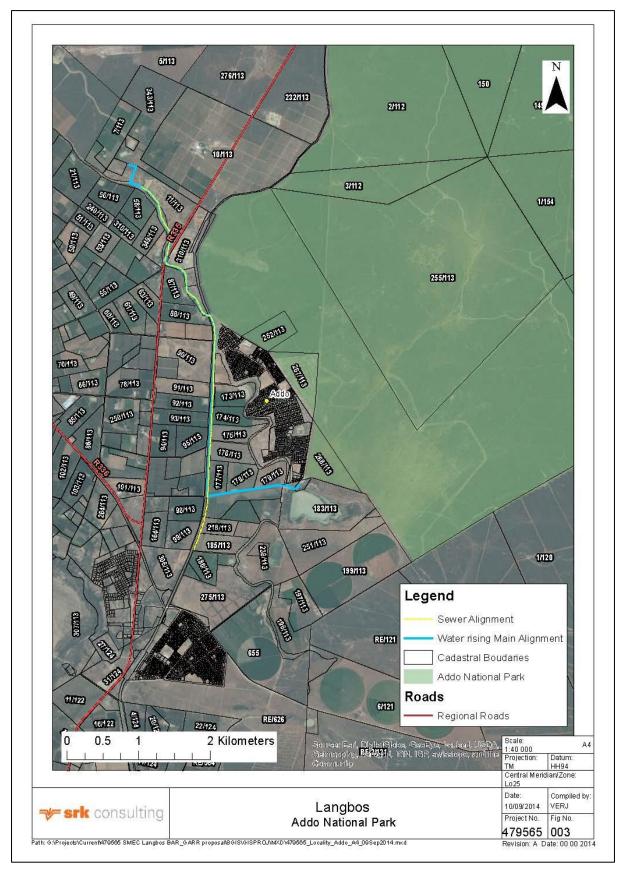


Figure 4. Map showing the location of the sewer alignment, the water rising main alignment, and cadastral boundaries for the proposed Langbos bulk water supply services and waste water service pipelines (courtesy of SRK Consulting).

#### **3. ARCHAEOLOGICAL INVESTIGATION**

#### 3.1. Methodology

The archaeological investigation was carried out by following the route for the proposed project in a vehicle and conducting spot checks when the road veered from the direct project area, when exposed surface areas, and points of interest were observed along the route. The proposed area was investigated for possible archaeological heritage remains, features, and sites. Photographs and GPS readings were taken using a Garmin Oregon 550 (Table 1). The GPS co-ordinates have been plotted on Figure 3.

#### 3.2. Results of the Archaeological Survey

The vegetation cover along the route can be considered as transformed vegetation and is particularly dense grass, shrub, and some thicket vegetation across the proposed area for foe development, therefore, obscuring archaeological surface visibility. The proposed area for development has in the past been heavily disturbed by the construction and continued maintenance of the canal and the construction of the Langbos Township, the railway line, the gravel access road, water erosion channels, power lines, fences, a narrow cement canal, underground pipeline systems, and other human activities (Figures 5-12).

The remains of built environment structures occurs north of the proposed development area, not included within the study / development area (Figure 13). Built environment structures (LPBE1 and LPBE2) such as degraded unidentified structures were documented along the gravel access road followed, retaining walls / weirs, and building rubble. A contemporary structure (LPBE3) most probably associated with the railway activities is located near the end of the proposed pipeline area on route to Caesar's Dam (Figures 14-19). These structures are more than likely contemporary, within the last 60 years, and should not to be affected during the construction activities of the proposed development.

One memorial wreath (LPMW) was documented next to the railway line in the southern extent of the proposed pipeline area (Figure 20). There is no identification of who the memorial wreath is in memory of. Although contemporary these wreaths are considered to be a part of the living heritage of the local community which is protected under the national Heritage Resources Act 25 of 1999 and should therefore be considered as significant. The ethical procedures should be followed with regards and removal of these memorial wreaths.

No archaeological material was found within the proposed project area, however, it does not eliminate the possibility of archaeological artefacts in the area. No graves or historical buildings were observed within the proposed site. A formal graveyard is located west of the railway associated building structure and should not be negatively impacted during the construction of the proposed development.



Figure 5. View of the area that has been disturbed by the construction of the canal, the Langbos Township, and human activities.





Figure 6. View of the densely covered grass vegetation that occurs throughout most of the proposed route.

Figure 7. View of the densely covered vegetation throughout the route as well as other disturbances such as footpaths, the adjacent gravel access road, power lines and fences.





Figure 8. View of the adjacent area showing the dense vegetation cover and overgrown building rubble.

Figure 9. View of the proposed route that has been heavily disturbed by the construction of the railway line, power lines, and the construction of the gravel service road.





Figure 10. View of a water catchment area along the proposed route.

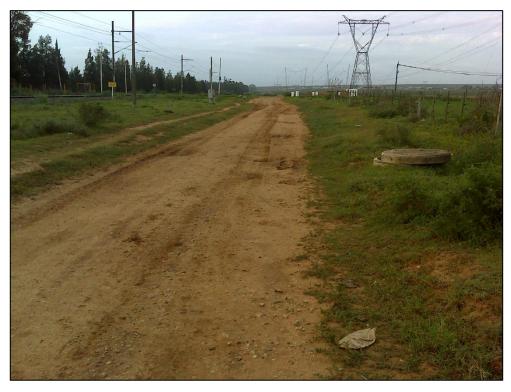


Figure 12. Example of manholes indicating existing underground pipe line systems.



Figure 13. View of the remains of buildings adjacent to the proposed pipeline route.



Figure 14. Degraded built environment structure on a dam near situated adjacent to the proposed pipeline route and near to the R335 road.



Figure 15. View of the degraded built environment structure situated adjacent to the proposed pipeline route (BE1).



Figure 16. View of the degraded built environment structure situated adjacent to the proposed pipeline route (BE2).



Figure 17. Example of retaining walls / weirs located along the proposed pipeline route.



Figure 18. View of a narrow cement canal located along the route for the proposed pipeline.



Figure 19.View of a contemporary built environment structure situated along the route for the proposed pipeline.



Figure 20. View of the memorial wreath located next to the railway line along the proposed route for the proposed pipeline.

#### 4. RELEVANT ARCHAEOLOGICAL IMPACT ASSESSMENTS

Very little systematic archaeological research has been conducted within the immediate and surrounding areas for the proposed project, therefore, Cultural Resource Management (CRM) Reports, such as archaeological and heritage impact assessments, assist in attempting to predict the archaeological and heritage resources that may be found within the proposed development areas. The following reports are considered relevant to the current project:

- Binneman, J. 2000. Eskom Poseidon (Cookhouse) Grassridge (Port Elizabeth) Proposed Powerline: First Phase Desktop Data Survey of Cultural Heritage Resources.
- Binneman, J. 2002. A Phase 1 Archaeological Impact Assessment: Agricultural Expansion on River Bend Citrus Farm, Final EIA Report.
- Binneman, J. 2008. A Phase 1 Archaeological Heritage Impact Assessment of the Proposed Amanzi Country Estate, Uitenhage District, Nelson Mandela Bay Municipality, Eastern Cape.
- Binneman, J. 2010. A Phase 1 Archaeological Impact Assessment for the Proposed Subdivision of Five Adjoining Properties (Willow Tree Country Estate) for a Mixed Use Development near Addo, Sundays River Valley Municipality, Uitenhage District, Eastern Cape Province.

Binneman, J.; Booth, C. & Higgitt, N. 2010. A Phase 1 Archaeological Impact Assessment

(AIA) for the Proposed Sand Mining on the Elva Heights Farm 102 and on the Difusi Land Trust Property incorporating the Farms De Bruyn's Kraal, Doorn Kloof, and Lang Vley, Paterson, Sunday's River Valley Municipality, Cacadu District Municipality, Eastern Cape Province.

Gaigher, S. 2013. Heritage Impact Assessment for the Proposed Upgrading of Stormwater

Infrastructure in Valencia, Addo, Sundays River Valley Municipality.

- Kaplan, J. M. 2007. Draft Feasibility Report for the Proposed Regional, General and Hazardous Waste Disposal Facility (Addo, Eastern Cape): Heritage Assessment.
- Kaplan, J. M. 2008. Archaeological Impact Assessment: proposed Lodge and Game Viewing Development on the Farm Melkhoutboom No. 6 Division of Alexandria, Sundays River Municipality, Eastern Cape Province.
- Nel, J. 2008. Final Report Heritage Resources Scoping Survey and Preliminary Assessment: Transnet Freight Line EIA, Eastern Cape and Northern Cape.
- Nilssen, P. 2007. Archaeological Heritage Impact Assessment: Remainder Portion 3 of the Farm Boekenhout Fontein No. 296 and Remainder Portions 6 and 1 – of Portion 1 – of the Farm Assegai Bush No. 296: Establishment of Game Lodges and Resorts to be incorporated into the Greater Lalibela Nature Reserve, Eastern Cape.
- Rossouw, L. 2005. Phase 1 Heritage Impact Assessment of Disco Chicks Farm 2 (Farm 713), Sundays River Municipality.
- Van Ryneveld, K. 2012. Phase 1 Archaeological Impact Assessment: Utilization of Existing Gravel Borrow Pits, Cacadu District, Eastern Cape, South Africa.
- Van Schalkwyk, L. O. & Wahl, B. 2007. Heritage Impact Assessment of Gamma Grassridge Power Line Corridors and Substation, Eastern, Western and Northern Cape Provinces, South Africa.
- Van Schalkwyk, L. O. & Wahl, B. 2008. Heritage Impact Assessment of Ndlambe and Makana Borrow Pits, Greater Cacadu Region, Eastern Cape Province, South Africa.
- Webley, L. E. 2002. Proposed Kaboega Dam Phase 1 Heritage Impact Assessment.
- Webley, L. E. 2003. Addo Elephant National Park: Upgrading of Existing Tourist Road Network and Construction of Southern Access Road near Colchester – Phase 1 Archaeological Impact Assessment.
- Webley, L. E. 2007a. A Phase 1 Archaeological Impact Assessment on the Construction of 50 KM of Loop Roads on the Farms Addo Heights (209), Lismore (208), Zoute Fontein (210), Nieu Jaars Kop (300) and Oliphants Plaat (214) within the Southern Section of the Addo Elephant National Park, Eastern Cape.
- Webley, L. E. 2007b. Phase 1 Heritage Impact Assessment on Portions of Farms Boekenhout Fontein, Assegaai Bush and Birchwood Park for the Establishment of Game Lodges and Resorts to be incorporated into the Greater Lalibela Nature Reserve, Eastern Cape.
- Webley, L. E. 2007c. Phase 1 Heritage Impact Assessment: Proposed Rezoning of the Farm 655 Portion 196, 197, 199, and 275 of Farm 113 (Stellenhof), Addo, Eastern Cape.
- Webley, L. E. 2008. Heritage Impact Assessment for the Farm 294 Amanzi Estate,

Portion 4 of the Farm Amanzi Mooi Water Erf 296, Portion 3 of Rietheuvel and Erf 296 Rietheuvel, in the Nelson Mandela Bay Municipality, Eastern Cape. Webley, L.E.; Way-Jones, F.; de Klerk, B. & Cocks, M. 2002. Greater Addo Elephant National Park Cultural Mapping Pilot Project.

#### **5. REFERENCES**

National Heritage Resources Act 25 of 1999 (NHRA 25 of 1999) South African Heritage Resources Agency (SAHRA) Provincial Heritage Site (PHS) list. South African Heritage Resources Information System (SAHRIS) Database. SRK Consulting. Background information and maps provided.

#### **6. LETTER OF RECOMMENDATION**

It is recommended that the area proposed for the bulk water supply service and waste water service pipelines, Addo, Sunday's River Valley Municipality, Cacadu District Municipality, Eastern Cape Province, is exempted from a full Phase 1 Archaeological Impact Assessment. The proposed area for development is of low archaeological cultural sensitivity. It is believed that it is unlikely that any archaeological heritage remains will be found on the property. The development may proceed as planned.

There were no archaeological artefacts located during the phase 1 archaeological impact assessment carried out. If any archaeological or heritage material were to be discovered it is very unlikely that it would be *in situ*. However, there is always a possibility that human remains or other archaeological and historical material may be uncovered during the development. Such material must be reported to the Eastern Cape Provincial Heritage Resources Agency (ECPHRA) (043 745 0888) or the Albany Museum (046 622 2312) if exposed.

**Note:** This letter of recommendation **only** exempts the proposed development from a full Phase 1 Archaeological Heritage Impact Assessment, but **not** for other heritage impact assessments.

It must also be clear that this letter of recommendation for exemption of a full Phase 1 archaeological heritage impact assessment will be assessed by the relevant heritage resources authority. The final decision rests with the heritage resources authority, which should give a permit or a formal letter of permission for the destruction of any cultural sites.

The National Heritage Resources Act (Act No. 25 of 1999, section 35) requires a full Heritage Impact Assessment (HIA) in order that all heritage resources, that is, all places or objects of aesthetics, architectural, historic, scientific, social, spiritual linguistic or technological value or significance are protected. Thus any assessment should make provision for the protection of all these heritage

components, including archaeology, shipwrecks, battlefields, graves, and structures older than 60 years, living heritage, historical settlements, landscapes, geological sites, palaeontological sites and objects.

#### 7. RECOMMENDATIONS

Although no archaeological heritage remains, features, and sites were encountered during the survey, only one living heritage resource was encountered. The following recommendations should be considered before development proceeds:

- 1. The family members associated with placing the memorial wreath along the proposed route for the pipeline should be consulted and informed of the removal during the construction phase. On the families instruction the memorial wreaths should be placed back in their original positions once the particular sections of the road upgrade has been completed. This may prove difficult as there is no identification of who the memorial wreath is in memory of and should be conducted during the public participation process.
- If concentrations of archaeological heritage material and human remains are uncovered during construction, all work must cease immediately and be reported to the Albany Museum (046 622 2312) and/or the South African Heritage Resources Agency (SAHRA) (021 642 4502) so that systematic and professional investigation/ excavation can be undertaken.
- 3. The environmental control officer (ECO) as well as the construction managers/foremen should be informed before construction starts on the possible types of heritage sites and cultural material they may encounter and the procedures to follow when they find sites.

### 8. GENERAL REMARKS AND CONDITIONS

It must be emphasised that this letter of recommendation for exemption of a full Phase 1 archaeological heritage impact assessment is based on the visibility of archaeological sites/material and may not, therefore, reflect the true state of affairs. Sites and material may be covered by soil and vegetation and will only be located once this has been removed. In the unlikely event of such finds being uncovered, (during any phase of construction work), archaeologists must be informed immediately so that they can investigate the importance of the sites and excavate or collect material before it is destroyed (see attached list of possible archaeological sites and material). The *onus* is on the developer to ensure that this agreement is honoured in accordance with the National Heritage Act No. 25 of 1999.

### **APPENDIX A: HERITAGE LEGISLATIVE REQUIREMENTS**

Parts of sections 3(1)(2)(3), 34(1), 35(4), 36(3) and 38(1)(8) of the National Heritage Resources Act 25 of 1999 apply:

### S3. National estate

3. (1) For the purposes of this Act, those heritage resources of South Africa which are of cultural significance or other special value for the present community and for future generations must be considered part of the national estate and fall within the sphere of operations of heritage resources authorities.

3. (2) Without limiting the generality of subsection (1), the national estate may include –(a) places, buildings, structures and equipment of cultural significance;

(b) places to which oral traditions are attached or which are associated with living heritage;

- (c) historical settlements and townscapes;
- (d) landscapes and natural features of cultural significance;
- (e) geological sites of scientific or cultural importance;
- (f) archaeological and palaeontological sites;
- (g) graves and burial grounds, including
  - (i) ancestral graves;
  - (ii) royal graves and graves of traditional leaders;

- (iii) graves and victims of conflict;
- (iv) graves of individuals designated by the Minister by notice in the Gazette;
- (v) historical graves and cemeteries; and
- (vi) other human remains which are not covered in terms of the Human Tissue Act, 1983 (Act No. 65 of 1983);
- (h) sites of significance relating to the history of slavery in South Africa;
- (i) movable objects, including -
  - (i) objects recovered from the soil or waters of South Africa, including archaeological and palaeontological specimens;
  - (ii) objects to which oral traditions are attached or which are associated with living heritage;
  - (iii) ethnographic art and objects;
  - (iv) military objects;
  - (v) objects of decorative or fine art;
  - (vi) objects of scientific or technological interest; and
  - (vii) books, records, documents, photographic positives and negatives, graphic, film or video material or sound recordings, excluding those that are public records as defined in section 1(xiv) of the National Archives of South Africa Act (Act No. 43 of 1996).

3. (3) Without limiting the generality of subsections (1) and (2), a place or object is to be considered part of the national estate if it has cultural significance or other special value because of –

(a) its importance in the community, or pattern of South Africa's history;

(b) its possession of uncommon, rare or endangered aspects of South Africa's natural or cultural heritage;

(c) its potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage;

(d) its importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects;

(e) its importance in exhibiting particular aesthetic characteristics valued by a community or cultural group;

(f) its importance in demonstrating a high degree of creative or technical achievement at a particular period;

(g) its strong or special association with the life or work of a person, group or organisation of importance in the history of South Africa; and

(i) sites of significance relating to the history of slavery in South Africa.

# S34. Structures

34. (1) No person may alter or demolish any structure or part of a structure which is older than 60 years without a permit issued by the relevant provincial heritage resources authority.

### S35. Archaeology, palaeontology and meteorites

35 (4) No person may, without a permit issued by the responsible heritage resources authority—

- (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;
- (d) bring onto or use at an archaeological or palaeontological site any excavation equipment or any equipment which assist in the detection or recovery of metals or archaeological and palaeontological material or objects, or use such equipment for the recovery of meteorites.

# S36. Burial grounds and graves

36. (3) (a) No person may, without a permit issued by SAHRA or a provincial 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, 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 equipment, or any equipment which assists in the detection or recovery of metals.

# S38. Heritage resources management

38. (1) Subject to the provisions of subsections (7), (8) and (9), any person who intends to undertake a development categorized as –

- (a) the construction of a road, wall, power line, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length;
- (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 the site -
  - (i) exceeding 5000m<sup>2</sup> in extent, or
  - (ii) involving three or more 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 resources authority;
- (d) the re-zoning of a site exceeding 10  $000m^2$  in extent; or

(e) any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority, must as 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.

### **APPENDIX B: GRADING SYSTEM**

The NHRA stipulates the assessment criteria and grading of archaeological sites. The following categories are distinguished in Section 7 of the Act and the South African Heritage Resources Agency:

- National: This site is suggested to be considered of Grade 1 significance and should be nominated as such. Heritage resources with qualities so exceptional that they are of special national significance.
- Provincial: This site is suggested to be considered of Grade II significance and should be nominated as such. Heritage resources which, although forming part of the national estate, can be considered to have special qualities which make them significant within the context of a province or a region
- Local: This site is suggested to be Grade IIIA significance. This site should be retained as a heritage register site (High significance) and so mitigation as part of the development process is not advised.
- Local: This site is suggested to be Grade IIIB significance. It could be mitigated and (part) retained as a heritage register site (High significance).
- 'General' Protection A (Field Rating IV A): This site should be mitigated before destruction (usually High/Medium significance).

- 'General' Protection B (Field Rating IV B): This site should be recorded before destruction (usually Medium significance).
- 'General Protection C (Field Rating IV C): This site has been sufficiently recorded (in the Phase 1). It requires no further recording before destruction (usually Low significance).

# APPENDIX C: IDENTIFICATION OF ARCHAEOLOGICAL FEATURES AND MATERIAL FROM INLAND AREAS: guidelines and procedures for developers

### 1. Human Skeletal material

Human remains, whether the complete remains of an individual buried during the past, or scattered human remains resulting from disturbance of the grave, should be reported. In general the remains are buried in a flexed position on their sides, but are also found buried in a sitting position with a flat stone capping and developers are requested to be on the alert for this.

### 2. Freshwater mussel middens

Freshwater mussels are found in the muddy banks of rivers and streams and were collected by people in the past as a food resource. Freshwater mussel shell middens are accumulations of mussel shell and are usually found close to rivers and streams. These shell middens frequently contain stone tools, pottery, bone, and occasionally human remains. Shell middens may be of various sizes and depths, but an accumulation which exceeds  $1 \text{ m}^2$  in extent, should be reported to an archaeologist.

# 3. Stone artefacts

These are difficult for the layman to identify. However, large accumulations of flaked stones which do not appear to have been distributed naturally should be reported. If the stone tools are associated with bone remains, development should be halted immediately and archaeologists notified

#### 4. Fossil bone

Fossil bones may be found embedded in geological deposits. Any concentrations of bones, whether fossilized or not, should be reported.

#### 5. Large stone features

They come in different forms and sizes, but are easy to identify. The most common are roughly circular stone walls (mostly collapsed) and may represent stock enclosures, remains of wind breaks or cooking shelters. Others consist of large piles of stones of different sizes and heights and are known as *isisivane*. They are usually near river and mountain crossings. Their purpose and meaning is not fully understood, however, some are thought to represent burial cairns while others may have symbolic value.

#### 6. Historical artefacts or features

These are relatively easy to identify and include the foundations and remains of buildings, packed dry stone walling representing domestic stock kraals. Other items include historical domestic artefacts such as ceramics, glass, metal and military artefacts and dwellings.