

# Archaeological Heritage Impact Assessment

**Remainder Portion 3 of the Farm Boekenhout Fontein No. 297 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.**

prepared for  
**CEN Integrated Environmental Management Unit**  
36 River Road, Walmer, Port Elizabeth, 6070  
Tel & Fax: 041-581 2983

by



Centre for Heritage and Archaeological Resource Management cc

**C H A R M cc**  
**Dr. Peter Nilssen**  
PO Box 176, Great Brak River, 6525  
044-6905280; 0827835896; [peter@carm.co.za](mailto:peter@carm.co.za)

## **Executive Summary**

SAHRA's review comment on the Heritage Impact Assessment conducted by Dr. L. Webley requested further investigation including;

- 1) "a full archaeological field survey (on foot) of Portions 1 and 6 of Farm 296 (Assegaai Bush) and Portion 3 of Farm 297 (Boekenhout Fontein) must be done and must include the Assegaai River valley and its watershed and that of other streams near the development nodes",
- 2) "given the historical value of Assegaai Bush farm house as highlighted in the report, it appears that a conservation architect with good knowledge of nineteenth century buildings would need to assess this structure before any further considerations about its inclusion into the development of the hotel are finalized. This must be addressed by SAHRA Provincial Heritage office and the Provincial Heritage Resources Authority of the Eastern Cape" and
- 3) "If permission is granted for development of Assegaai Bush farm house and surrounding areas, an historical archaeologist must monitor earth moving and landscaping activities for possible buried structures, trenches and historical dumps".

The study reported here focuses on point one above; expanding the impact assessment to areas not studied by Dr. Webley and as required in SAHRA's review comment. Areas and heritage-related features studied and reported by Dr. Webley are excluded to avoid duplication, and therefore, her report should be read in tandem with this one and accompanies this submission. General descriptions of the study area are excluded since these appear in Dr. Webley's report and reports on other aspects covered by the EIA are available from CEN Integrated Environmental Management Unit.

An environmental assessment practitioner of CEN Integrated Environmental Management Unit should approach the relevant heritage authorities to resolve issues concerning legislation applicable to the Built Environment as detailed in point 2 above. Contact details for relevant parties are given in the report.

If necessary, CHARM can make arrangements for archaeological monitoring as described in point 3 above. This and potential archaeological mitigation required as a result of monitoring will be conducted at the developer's expense.

An Archaeological Heritage Impact Assessment was conducted on the above named property over four days from 14 August 2007. Dense and often impenetrable vegetation in valleys severely restricted the extent of the foot survey. Additionally, archaeological visibility is low due to widespread vegetation cover.

Apart from the 1820 Settler memorial, Assegaai Bush farmhouse and isolated stone artifact documented by Dr. Webley (2007), the expanded foot survey and assessment reported here yielded two Stone Age artifacts of Early or Middle Stone Age origin. If significant archaeological materials occur on the property, then they are concealed by vegetation and thus protected from people. If artifact scatters occur, then at least a few should have been stumbled upon during this study. Dense vegetation and high proportions of ground cover will naturally restrict pedestrian traffic to open areas. It is unlikely that people not trained in the detection and

*identification of archaeological materials will find sites given that - aside historical material - professionals searching for archaeological materials identified only 3 isolated Stone Age artifacts. It is concluded that the proposed development and pedestrian traffic in the study area will not have a negative impact on archaeological and heritage related resources. From the perspective of specialist archaeologist and generalist heritage practitioner, and taking cognizance of SAHRA's requirements detailed in their review comment on Dr. Webley's report, it is recommended that the proposed development be authorized.*

## Table of Contents

<b>Content</b>	<b>Page</b>
Executive Summary .....	2
1. Introduction .....	5
1.1. Background .....	5
1.2. Purpose of the Study .....	5
1.3. Study Area .....	6
1.4. Approach to the Study .....	6
2. Results .....	7
3. Sources of Risk, Impact Identification, Assessment and Recommendation ....	7
4. References .....	7
5. Acknowledgements .....	7
Figures and Plates .....	8

## **1. Introduction**

### **1.1 Background**

For ease of reference, the documents detailed in section 4 below are submitted to accompany this CHARM report.

Dr. L. Webley was commissioned by CEN Integrated Environmental Management Unit to conduct a Phase 1 Heritage Impact Assessment (HIA) with respect to the above-named proposed development on Portions 1 and 6 of Farm 296 (Assegaai Bush) and Portion 3 of Farm 297 (Boekenhout Fontein West), Lalibela Nature Reserve, Eastern Cape (Figures 1, 2 and 3). SAHRA's review comment of 30 May 2007 (SAHRA File No: 9/2/003/0001) on Dr. Webley's Heritage Impact Assessment - as reported in April 2007, requested further investigation including; 1) "a full archaeological field survey (on foot) of Portions 1 and 6 of Farm 296 (Assegaai Bush) and Portion 3 of Farm 297 (Boekenhout Fontein) must be done and must include the Assegaai River valley and its watershed and that of other streams near the development nodes", 2) "given the historical value of Assegaai Bush farm house as highlighted in the report, it appears that a conservation architect with good knowledge of nineteenth century buildings would need to assess this structure before any further considerations about its inclusion into the development of the hotel are finalized. This must be addressed by SAHRA Provincial Heritage office and the Provincial Heritage Resources Authority of the Eastern Cape" and 3) "If permission is granted for development of Assegaai Bush farm house and surrounding areas, an historical archaeologist must monitor earth moving and landscaping activities for possible buried structures, trenches and historical dumps".

The client appointed CHARM cc to conduct additional investigations as requested by SAHRA in their review comment as detailed above. The study reported here focuses on point one above; expanding the impact assessment to areas not studied by Dr. Webley and as required in SAHRA's review comment. Areas and heritage-related features studied and reported by Dr. Webley are excluded to avoid duplication, and therefore, her report should be read in tandem with this one and accompanies this submission. Since this is a "top up" Archaeological Heritage Impact Assessment, the contents are restricted to fulfill SAHRA's requirements and therefore it is critical that this report is read in conjunction with Dr. Webley's report.

Activities associated with the proposed development on the property include (for layout see Figure 3 and for further detail consult CEN Integrated Environmental Management Unit):

- Construction of 66 private dwelling units and vehicle tracks as well as the installation of associated services,
- Construction of a hotel and installation of associated services and
- Residents "are free to ramble alone in a common area of 700 hectares".

### **1.2. Purpose and Scope of the Study**

Objectives of the Archaeological Heritage Impact Assessment are:

- To expand the foot survey to include areas not studied by Dr. Webley
- To assess the study area for traces of archaeological and heritage-related materials;
- To identify options for mitigation in order to minimize potential negative impacts; and
- To make recommendations for mitigation.

Terms of Reference (ToR):

- a) Locate boundaries of the study area.
- b) Conduct a foot survey of the study area to identify and record archaeological and heritage-related resources.
- c) Assess the impact of the proposed development on archaeological and heritage-related materials.
- d) Recommend mitigation measures where necessary.
- e) Prepare and submit a report to CEN Integrated Environmental Management Unit that meets standards required by SAHRA in terms of the National Heritage Resources Act, No. 25 of 1999.

### **1.3 Study Area**

The study area is situated about 40 kilometers from Grahamstown on the northern side of the N2 between Port Elizabeth and Grahamsown in the Eastern Cape (Figures 1, 2 and 3). It was reached by vehicle on the N2 and then via gravel roads and single vehicle gravel tracks. The area is approximately 750 hectares in extent, and its boundary points - rounded to the nearest meter - are as follows (map datum WGS 84; see Figure 3):

A, S33.35888 E26.22904 (decimal degrees); 27 Y0071756 X3692815 (SA Grid)  
 B, S33.36509 E26.25052 (decimal degrees); 27 Y0069752 X3693490 (SA Grid)  
 C, S33.38207 E26.24595 (decimal degrees); 27 Y0070164 X3695377 (SA Grid)  
 D, S33.38332 E26.26066 (decimal degrees); 27 Y0068794 X3695505 (SA Grid)  
 E, S33.39623 E26.25674 (decimal degrees); 27 Y0069148 X3696940 (SA Grid)  
 F, S33.39722 E26.26041 (decimal degrees); 27 Y0068806 X3697048 (SA Grid)  
 G, S33.40146 E26.25930 (decimal degrees); 27 Y0068907 X3697519 (SA Grid)  
 H, S33.40340 E26.24960 (decimal degrees); 27 Y0069807 X3697740 (SA Grid)  
 I, S33.39739 E26.24902 (decimal degrees); 27 Y0069866 X3697073 (SA Grid)  
 J, S33.39387 E26.23587 (decimal degrees); 27 Y0071093 X3696692 (SA Grid)  
 K, S33.38148 E26.23492 (decimal degrees); 27 Y0071191 X3695319 (SA Grid)  
 L, S33.37089 E26.22796 (decimal degrees); 27 Y0071847 X3694148 (SA Grid)

A large portion of the property is severely disturbed as a result of activities associated with farming including construction of houses, outbuildings, dams as well as the installation of orchards (see Figure 4).

The property is described by Dr. Webley and further details are available from CEN Integrated Environmental Management Unit. Plates 1 through 5 viewed in conjunction with Figure 4 show varied topography and vegetation cover in the study area. Dense and often impenetrable vegetation in valleys – slopes, rivers and stream beds - severely restricted coverage of the foot survey (Plates 1, 2, 4 and 5). Additionally, archaeological visibility is low for the bulk of the area due to dense vegetation cover (Plates 4 and 5). The topography comprises mainly gentle undulating hills though some valleys and slope sides are steep (Figure 3 and Plates 1 through 5). The geological environment is not described here but such details are available from CEN Integrated Environmental Management Unit.

### **1.4 Approach to the Study**

See Dr. Webley's report for comprehensive details concerning the history of Assegaai Bush as well as references to other archaeological sites in the general area. Dr. Webley's field work was restricted to dwelling footprints in the development nodes as well as the Assegaai Bush farm house and 1820 Settler Memorial.

An Archaeological Heritage Impact Assessment was conducted on the above named property over four days from 14 August 2007. Dense and often impenetrable vegetation in valleys restricted the extent of the foot survey. Additionally, archaeological visibility is low due to dense vegetation cover. As requested by SAHRA, the survey was expanded to

include areas not covered by Dr. Webley, specifically valleys and watersheds near development nodes (see Figure 3). In addition, areas likely to contain archaeological materials such as hill tops, rocky outcrops and rock shelters or overhangs were also examined. A combination of vehicle and foot survey was deployed with most areas covered on foot. Walk tracks were fixed with a hand held GPS to show the area covered during the foot survey (Figure 5). GPS fixes were also made for mapping photo localities and archaeological occurrences (Figures 4 & 5 and Plates 1 through 5). Notes and a high quality, comprehensive digital photographic record were also made (full data set available from author). Exposed sediments and profiles as well as rocky outcrops were examined for traces of archaeological, palaeontological and heritage-related materials.

## **2. Results**

Figure 5 shows the AHIA walk tracks - black dash-dot line on white shadow - as fixed with a hand held GPS during the foot survey (gpx – GPS tracking - file available from author). The bulk of the survey was on foot and in just over 4 days of survey a distance of around 65 km was walked covering an area of about 26 hectares. Due to extensive vegetation cover – mostly grass - a smaller area was archaeologically visible (Figures 4 & 5 and Plates 1 through 5). The foot survey focused on areas as requested by SAHRA (see Figure 3) as well as localities usually associated with archaeological occurrences. Areas with potential rock shelters and overhangs were inspected, but no archaeology was seen in association with such areas. No substantial rock shelters/overhangs were seen.

The extensive foot survey and inspection reported here yielded two stone artifacts of either Early Stone Age (older than approximately 300 000 years) or Middle Stone Age (between some 30 000 to 300 000 years old) origin and portions of stone walling of historic origin that are mostly in ruins (Figure 5 and Plates 6 and 7). The isolated stone artifacts and portion of stone walling were recorded at (map datum WGS 84; see Figure 5 and Plates 6 & 7);

1. S33.39661 E26.26115 (decimal degrees); 27 Y0068738 X3696979 (SA grid)
2. S33.39553 E26.24790 (decimal degrees); 27 Y0070002 X3696866 (SA grid)
3. S33.39705 E26.25743 (decimal degrees); 27 Y0069084 X3697031 (SA grid)

Apart from the 1820 Settler Memorial, Assegaai Bush farm house, isolated Stone Age artifact documented by Dr. Webley (2007) and the 3 finds reported above, the study area appears to lack significant archaeological materials. If significant archaeological materials are present on the property, then they are concealed by vegetation and thus protected from people. If artifact scatters occur on the property, then at least a few should have been stumbled upon during this and Dr. Webley's study.

## **3. Sources of Risk, Impact Identification, Assessment and Recommendation**

- Apart from the Assegaai Bush farm house and 1820 Settler Memorial, construction related activities for the proposed development as presented by the layout in Figure 3 will not have a direct impact on archaeological resources.
- Apart from historical archaeological resources and in the absence of other archaeological materials there is no recommendation for mitigation.
- Concerning the Assegaai Bush farm house; an environmental assessment practitioner of CEN Integrated Environmental Management Unit must approach the relevant heritage authorities to resolve matters concerning legislation applicable to the Built Environment (Section 34 of the National Heritage

Resources Act [NHRA] No.25 of 1999). The following persons should be approached with respect to the built environment; Mr. Thanduxolo Lungile: [tlungile@ec.sahra.org.za](mailto:tlungile@ec.sahra.org.za) and Ms. Noliitha Ngcai: [nngcai@ec.sahra.org.za](mailto:nngcai@ec.sahra.org.za) of SAHRA Provincial Heritage Office and Vivien Nqakeltyelwa Tana: [ntanaphra@yahoo.com](mailto:ntanaphra@yahoo.com) of the Provincial Heritage Resources Authority of the Eastern Cape.

- If the farm house and surroundings of Assegai Bush are included in development, then earthmoving and landscaping activities must be monitored by a historical archaeologist for possible buried structures and historical dumps (SAHRA review comment).
- SAHRA's concern of the long term impact of pedestrian traffic on archaeological materials is reasonable, but results reported here indicate that sensitive archaeological and heritage related resources are absent or invisible. Dense vegetation and high proportions of ground cover will naturally restrict pedestrian traffic to open areas. It is unlikely that people not trained in the detection and identification of archaeological materials will find sites given that professionals searching for archaeological materials identified only 3 isolated Stone Age artifacts. It is concluded that pedestrian traffic in the study area will not have a negative impact on heritage related resources. From the perspective of specialist archaeologist and generalist heritage practitioner, it is recommended that the proposed development be authorized.

#### **4. References**

See the accompanying documents detailed below;

SAHRA 2007. (SAHRA File No: 9/2/003/0001) Review comment on Archaeological Impact Assessment Phase 1 Heritage Impact Assessment on portions of farms Boekenhout Fontein, Assegai 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. 2007. Phase 1 Heritage Impact Assessment on portions of farms Boekenhout Fontein, Assegai Bush and Birchwood Park for the establishment of Game Lodges and resorts to be incorporated into the greater Lalibela Nature Reserve, Eastern Cape.

#### **5. Acknowledgements**

Thanks to Mr. Rick Van Zyl and staff of Lalibela Nature Reserve – particularly Bruce – for making the field work phase of this study comfortable and enjoyable.

**Figures and Plates** (on following pages)



Figure 1. Black frame encompasses the study area located WSW of Grahamstown, Eastern Cape.

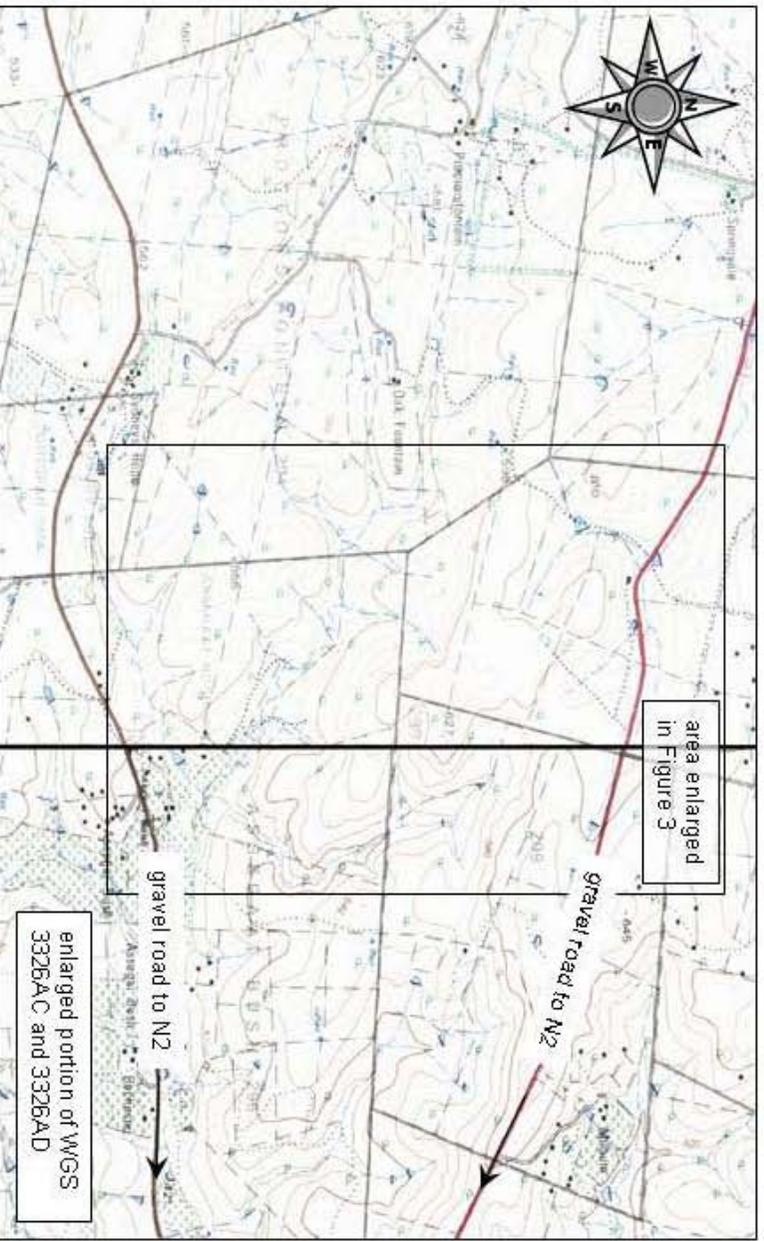


Figure 2. Enlarged area as indicated in Figure 1 showing the location of the study area - framed in black – on the above-named 1:50 000 maps

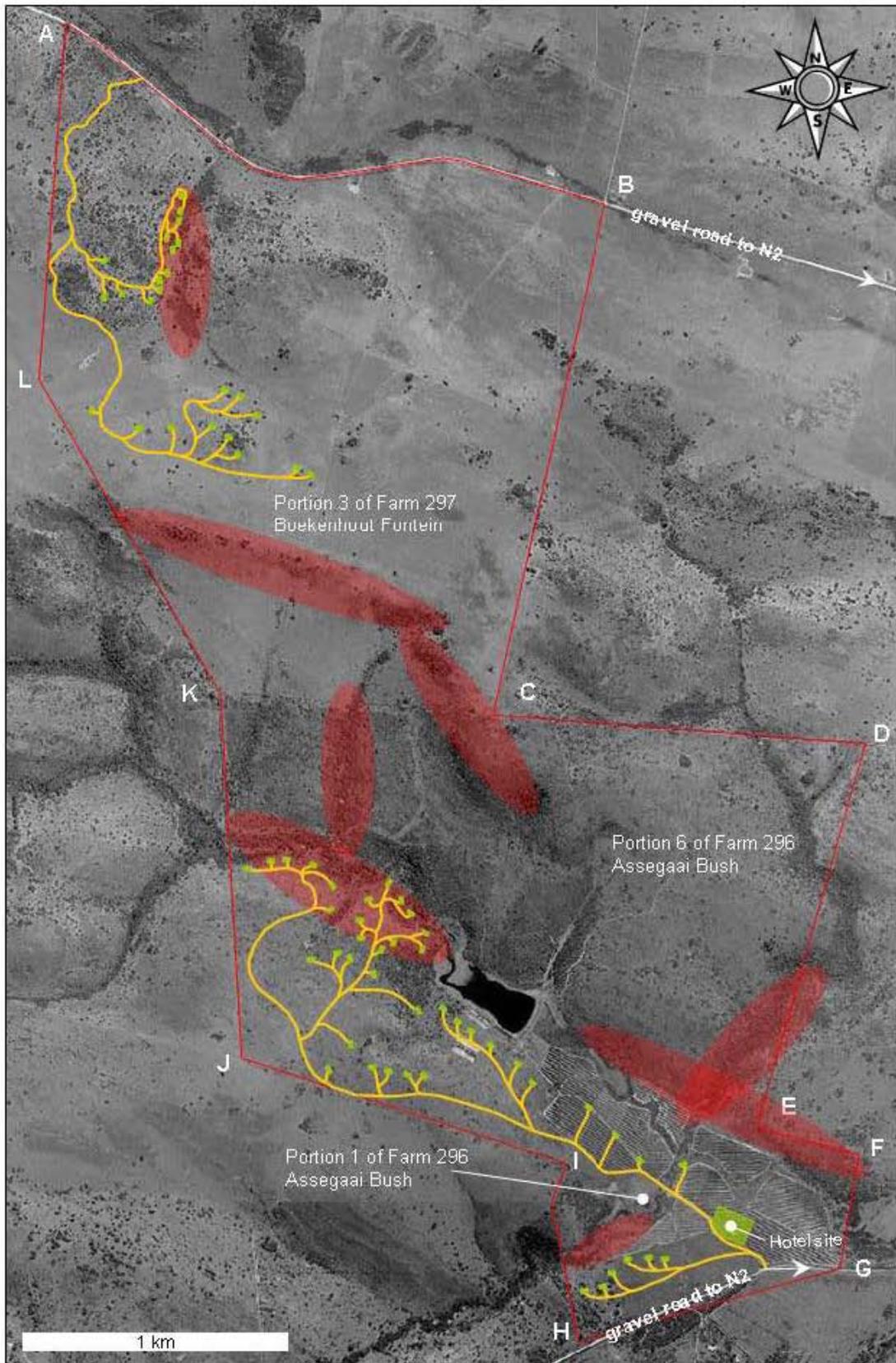


Figure 3. Enlarged area as indicated in Figure 2 with the study area outlined in red. See text for coordinates of A through L. Red ovals show some of the areas that SAHRA requested to be included in an expanded foot survey. Orange lines and green blocks represent proposed locations of vehicle tracks and private dwellings respectively.

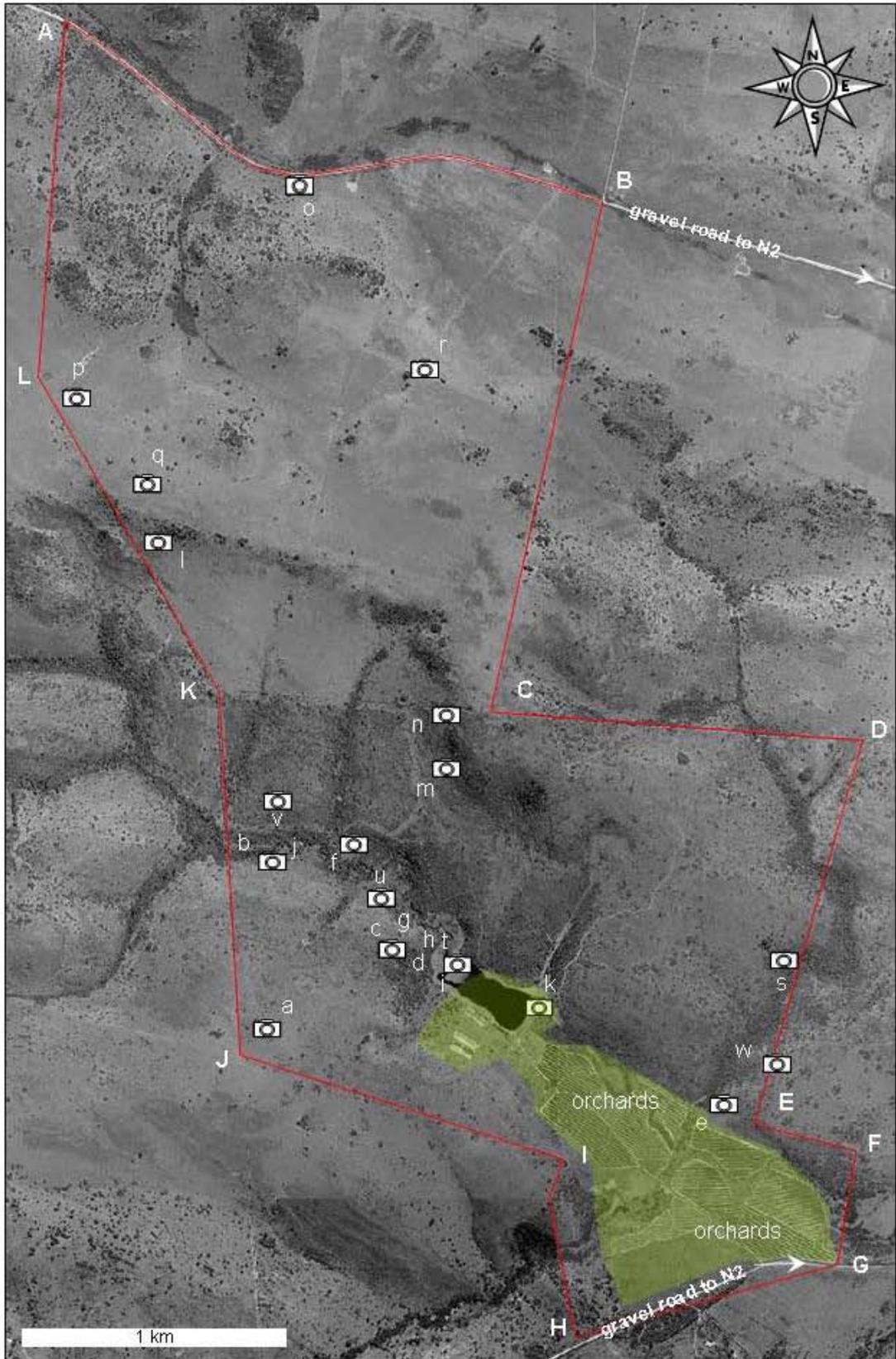


Figure 4. Enlarged area as indicated in Figure 2. Camera icons denote photo localities and lower case letters indicate the bearings of images/views shown in Plates 1 through 5. The green area shows the extent of the property impacted by long term and intensive farming activities.

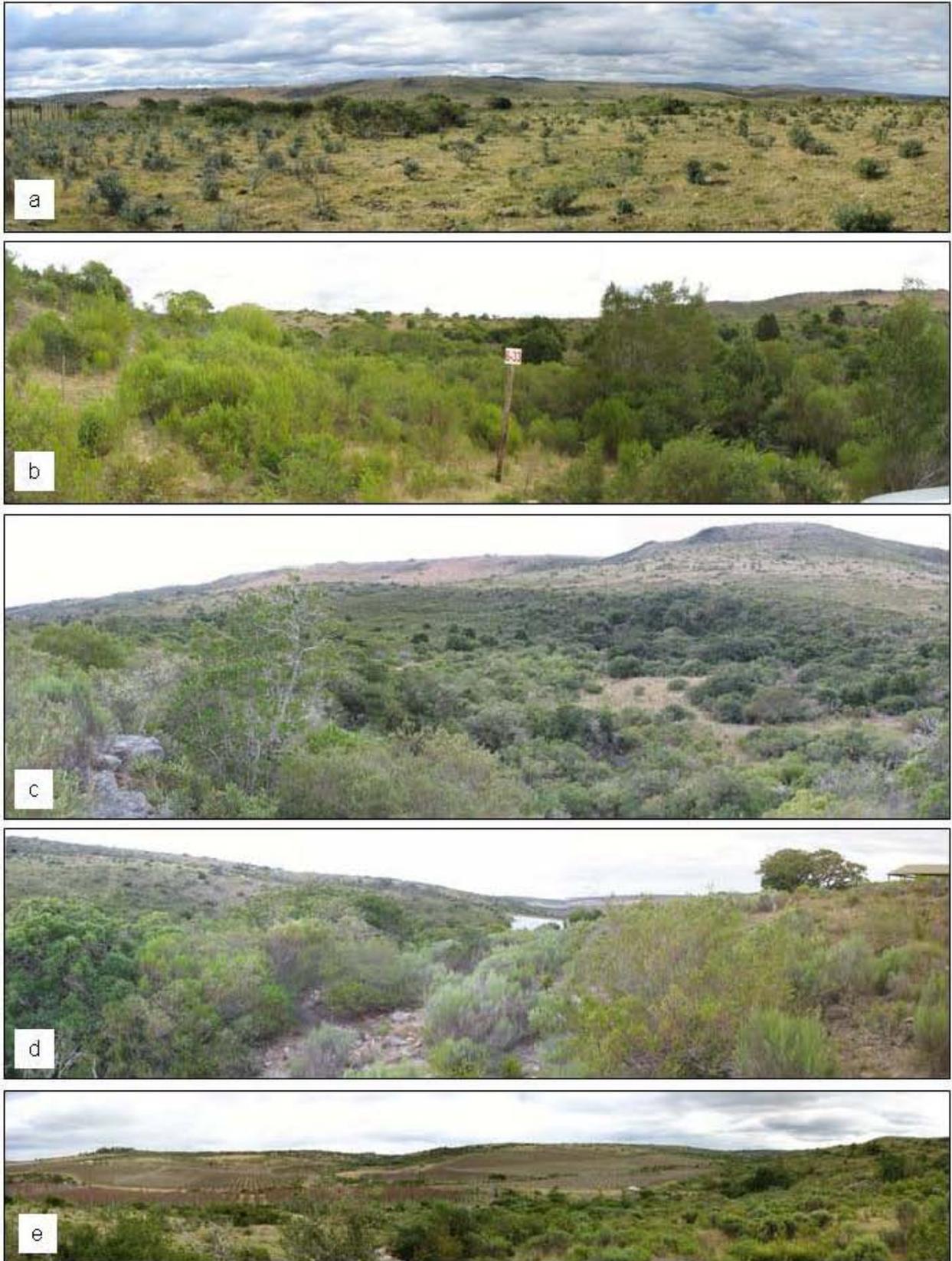


Plate 1. Panoramic views showing variable vegetation cover, features and topography in study area. The location and bearing of images are indicated with camera icons and lower case letters in Figure 4. For example, in Figure 4, **a** is NE of the associated camera icon indicating that the centre of the panoramic image of **a** above looks toward the NE from the camera icon.

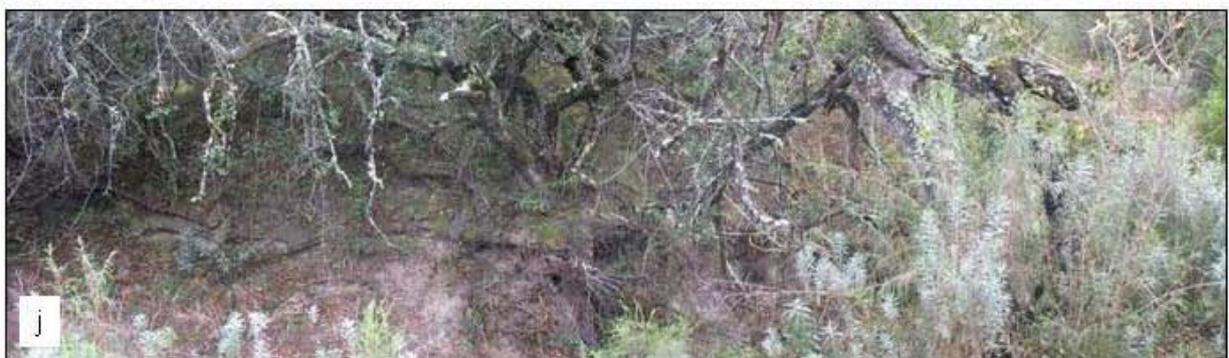


Plate 2. Panoramic views showing variable vegetation cover, features and topography in study area. The location and bearing of images are indicated with camera icons and lower case letters in Figure 4.



Plate 3. Panoramic views showing variable vegetation cover, features and topography in study area. Note dense vegetation in valleys and extensive ground cover in open areas. The location and bearing of images are indicated with camera icons and lower case letters in Figure 4.

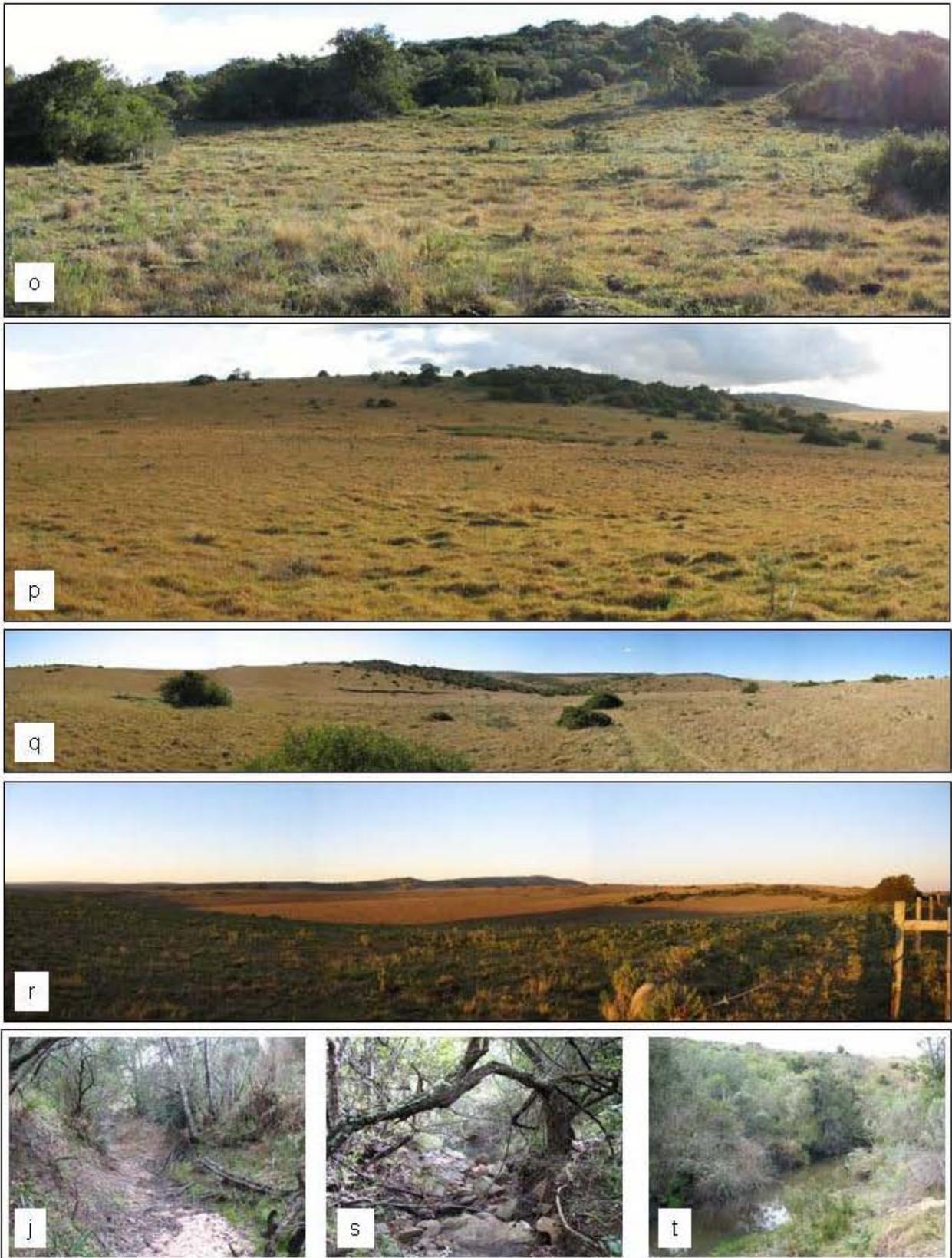


Plate 4. Panoramic views showing variable vegetation cover, features and topography in study area. Note extensive grass cover in the northern part of the study area (o, p, q and r). Examples of river and stream beds are shown in j, s and t. The location and bearing of images are indicated with camera icons and lower case letters in Figure 4.



Plate 5. Panoramic views showing variable vegetation cover, features and topography in study area. U, v and w show examples of impenetrable vegetation in valleys. The location and bearing of images are indicated with camera icons and lower case letters in Figure 4.

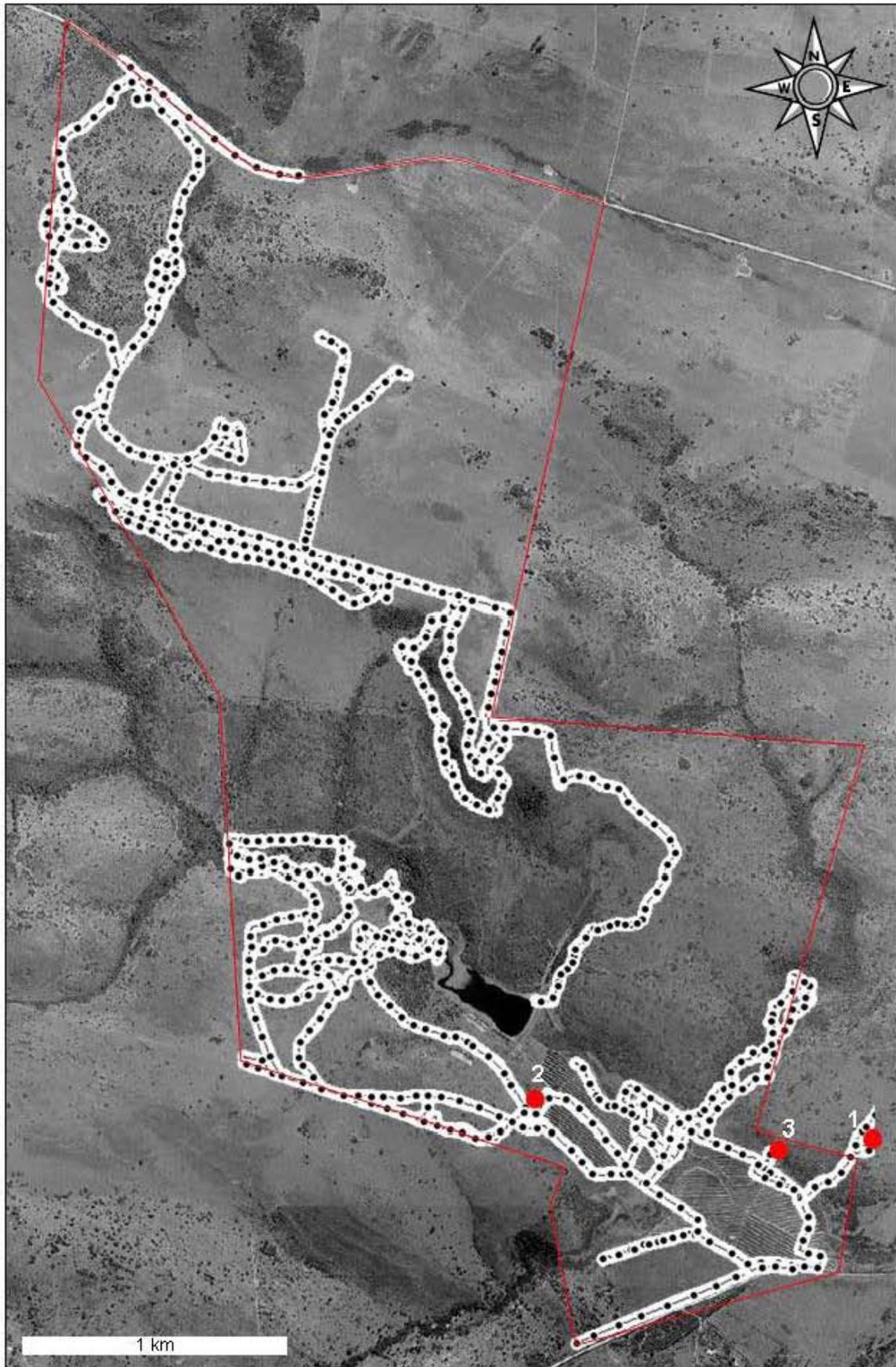


Figure 5. Enlarged area as indicated in Figure 2 with the boundary of the study area shown



Plate 6. Isolated Stone Age artefacts of Early or Middle Stone Age origin. The location of these are indicated with respective, numbered red dots in Figure 5.



Plate 7. Examples of mostly collapsed stone walls as deployed before the use of fencing made of wire and wooden droppers. The highest seen are some 130 cm by 40 to 50 cm wide (top and right). The location of this walling is indicated by red dot 3 in Figure 5.