A PHASE 1 ARCHAEOLOGICAL IMPACT ASSESSMENT FOR THE PROPOSED EXPANSION OF THE EXISTING AGRICULTURAL ACTIVITIES ON RIVER BEND CITRUS FARM, REMAINDER OF FARM 82 WOLVE KOP, PORTION 1 OF FARM 77 WELLSHAVEN AND PORTION 3 OF FARM 77 HONEYVALE, NEAR ADDO, SUNDAYS RIVER VALLEY MUNICIPALITY, EASTERN CAPE PROVINCE

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Note: This report follows the minimum standard guidelines required by the South African Heritage Resources Agency for compiling Archaeological Heritage Phase 1 Impact Assessment (AHIA) reports.

SUMMARY

Purpose of the study

The original proposal was to conduct a survey of possible archaeological sites on River Bend Citrus Farm, remainder of farm 82 Wolve Kop, portion 1 of farm 77 Wellshaven and portion 3 of farm 77 Honeyvale, near Addo, Sundays River Valley Municipality, Eastern Cape Province; to establish the range and importance of the archaeological sites/remains, the potential impact of the development and to make recommendations to minimize possible damage to these sites.

The investigation

Due to the dense/impenetrable thicket and grass vegetation it was difficult to find archaeological sites/materials, occasional Middle Stone Age stone tools were observed in areas where the dense vegetation has been cleared and in tracks where river gravels were exposed.

Cultural sensitivity

The development is near the Coega River and freshwater shell middens may be exposed during the clearing of the dense vegetation. In general the proposed property for development appeared to be of low archaeological sensitivity. Development may proceed as planned (see recommendations).

Recommendations

1. If any freshwater shell middens are uncovered during development, it should be reported immediately to the Albany Museum and/or the South African Heritage Resources Agency.

2. If any concentrations of other archaeological material are uncovered during development it should be reported immediately to the nearest archaeologist, museum and/or the South African Heritage Resources Agency.

PROJECT INFORMATION

Status

The report is part of an Environmental Impact Assessment.

The type of development

The proposed agricultural development on River Bend Citrus Farm, remainder of farm 82 Wolve Kop, portion 1 of farm 77 Wellshaven and portion 3 of farm 77 Honeyvale, near Addo, Sundays River Valley Municipality, Eastern Cape Province, is to expand the existing agricultural activities with a minimum of 300 hectares. The total size of the properties is 1058 hectares.

The Developer

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Terms of reference

Conduct a survey of possible archaeological sites on River Bend Citrus Farm, remainder of farm 82 Wolve Kop, portion 1 of farm 77 Wellshaven and portion 3 of farm 77 Honeyvale, near Addo**,** Sundays River Valley Municipality, Eastern Cape Province. The survey was conducted to establish;

- the range and importance of possible exposed and *in situ* archaeological sites, features and materials,
- the potential impact of the development on these resources and,
- to make recommendations to minimize possible damage to these resources.

BRIEF ARCHAEOLOGICAL BACKGROUND

Literature review

In general little systematic archaeological research and regional surveys/recordings have been conducted in the Addo area. The oldest evidence of the early inhabitants are large stone tools, called hand axes and cleavers, which can be found amongst river gravels and in old spring

deposits in the region. These large stone tools are from a time period called the Earlier Stone Age (ESA) and may date between 1,5 million and 250 000 years old. In a series of spring deposits at Amanzi Spring near Addo, a large number of stone tools were found *in situ* to a depth of 3-4 metres. Remarkably, wood and seed material preserved in the spring deposits, possibly dating to between 250 000 to 800 000 years old (Inskeep 1965; Deacon 1970).

The large hand axes and cleavers were replaced by smaller stone tools called the Middle Stone Age (MSA) flake and blade industries. Evidence of MSA sites occur throughout the region and date between 250 000 and 30 000 years old. These stone artefacts, like the Earlier Stone Age tools are also found in the gravels along the banks of the Sunday's River and like hand axes are mainly in secondary context. Fossil bone may in rare cases be associated with MSA occurrences.

The majority of archaeological sites found in the area date from the past 10 000 years (called the Later Stone Age) and are associated with the campsites of San hunter-gatherers and Khoi pastoralists. These sites are difficult to find because they are in the open veld and often covered by vegetation and sand. Sometimes these sites are only represented by a few stone tools and fragments of bone (Deacon & Deacon 1999). The preservation of these sites is poor and it is not always possible to date them. There are many San hunter-gatherers sites in the nearby Suurberg and adjacent mountains. Here caves and rock shelters were occupied by the San during the Later Stone Age with well-preserved living deposits and paintings along the walls (Deacon 1976).

Some 2 000 years ago Khoi pastoralists occupied the region and lived mainly in small settlements. They were the first food producers in South Africa and introduced domesticated animals (sheep, goat and cattle) and ceramic vessels to southern Africa. Often archaeological sites are found close to the banks of large streams and rivers. Large piles of freshwater mussel shell (called middens) usually mark these sites. Prehistoric groups collected the freshwater mussel from the muddy banks of the rivers as a source of food. Mixed with the shell and other riverine and terrestrial food waste are also cultural materials. Human remains are often found buried in the middens.

References

Deacon , H.J. 1970. The Acheulian occupation at Amanzi Springs, Uitenhage District, Cape Province. Annals of the Cape Provincial Museums. 8:89-189.

Deacon, H. J., 1976. Where hunters gathered: a study of Holocene Stone Age people in the Eastern Cape. South African Archaeological Society Monograph Series No. 1.

Deacon, H.J. & Deacon, J. Human beginnings in South Africa. Cape Town: David Phillips Publishers.

Inskeep, R.R. 1965. Earlier Stone Age occupation at Amanzi: preliminary investigations. South African Journal of Science. 61:229-242.

Museum/University databases and collections and relevant impact assessments

The Albany Museum in Grahamstown houses collections and information from the wider region. There are no impact assessments in the immediate vicinity.

DESCRIPTION OF THE PROPERTY

Area Surveyed

Location data

The proposed development to expand the existing agricultural activities with a minimum of 300 hectares on River Bend Citrus Farm, remainder of farm 82 Wolve Kop, portion 1 of farm 77

Wellshaven and portion 3 of farm 77 Honeyvale, near Addo, in the Sundays River Valley Municipality, Eastern Cape Province, is situated approximately 10 kilometres north of Addo, some 24 kilometres west of Paterson and the same distance east of Kirkwood. It is located next to the R335 gravel road to the Suurberg Pass. The Coerney River runs through the proposed properties for development with orchards along both embankments (Maps 1-2). The proposed development will take place north and south of the river.

Map

1:50 000 3325 BC Coerney

ARCHAEOLOGICAL INVESTIGATION

Methodology and finds

It was impossible to do a complete survey due to the large size of the properties and the dense vegetation. To cover as much of the terrain as possible the many tracks which run through the area were followed with a vehicle and investigated by spot checks on foot. GPS readings were taken with a Garmin and all important features were digitally recorded.

The northern area (Map 2)

It is a large area with two drainage lines running roughly from north to south. The high ground comprised of thick red soils and the lower ground of thick grey loams and silts. It was difficult to locate archaeological sites/materials because most of the area is covered by dense/ impenetrable thicket vegetation, low bushes and grass (Figs 1-8). However, occasional Middle Stone Age stone tools (older that 30 000 years) were found in the exposed river gravels which capped the hill tops and the slopes of the drainage lines overlooking the Coerney River Valley (Figs 9-12) (GPS reading at 33.25.578S; 25.42.310E). Similar stone tools were also observed in the tracks which were cleared through the dense thicket vegetation. These quartzite Middle Stone Age stone tools display typical facetted striking platforms and were found randomly without any recognised distribution patterns. Most of the tools were thick, small 'informal' flakes and chunks and were in secondary context. The stone tools were not associated with any other archaeological material. Few cores, points and blades were observed. One would also expect to find several Earlier Stone Age hand axes and cleavers (dating between 1,5 million and 250 000 years old) in these river gravels, but one was observed.

Southern area (Map 2)

This southern area has a gentle slope towards the Coerney River (north) and comprised of grey loamy soils covered by dense thicket vegetation, low bushes and Spekboom veld, but unlike the northern area, there were no exposed river gravels observed (Figs 13-16). Nevertheless, occasional Middle Stone Age stone tools were exposed in places in the dusty tracks between the dense vegetation (Figs 17-18) (GPS reading 33.26.643S; 25.42.765E). The tools were similar to those observed in the northern area and also in secondary context.

Apart from the occasional stone tools no other archaeological sites/materials were found. However, because the proposed development is near the Coerney River, it is possible that freshwater shell middens may be exposed during the clearing of the dense vegetation. There are no graves or buildings older than 60 years on the properties.

Figs 1-8. Different views of the dense vegetation and the exposed gravels in the northern area proposed for agricultural development.

F igs 9-12. Examples of Middle Stone Age stone tools observed in the northern area in the exposed river gravels in the tracks and on the slopes of the drainage slope.

Figs 13-16. Different views of the dense vegetation in the southern area proposed for agricultural development.

Figs 17-18. An example of Middle Stone Age stone tools observed exposed in a track in the southern area.

DISCUSSION

The areas investigated are covered with dense thicket vegetation which made it difficult to find archaeological sites. Notwithstanding, occasional Middle Stone Age stone artefacts were found in exposed river gravel in most areas where the vegetation was cleared or disturbed by farming activities. No spatial patterning or distribution of the tools was observed. The stone tools are in secondary context and of low sensitivity. Usually one would expect to find freshwater shell middens along the banks of rivers and streams such as the Coerny River. These are important archaeological sites and special care must be taken during development not to damage or to destroy them when found.

RECOMMENDATIONS

1. The proposed development will take place close to the Coerney River, in an area where one would expect to find fresh water shell middens. If such features are exposed, work should stop immediately and reported to the Albany Museum and/or the South African Heritage Resources Agency.

2. If any other concentrations of archaeological material are uncovered during development, it should be reported to the Albany Museum and/or the South African Heritage Resources Agency immediately so that systematic and professional investigation/excavations can be undertaken. Sufficient time should be allowed to remove/collect such material (See Appendix B for a list of possible archaeological sites that maybe found in the area).

3. 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. It is suggested that a person be trained to be on site to report to the site manager if sites are found.

GENERAL REMARKS AND CONDITIONS

Note: This report is a phase 1 archaeological impact assessment/investigation only and does not include or exempt other required heritage impact assessments (see below).

The National Heritage Resources Act (Act No. 25 of 1999, section 35) (see Appendix A) 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.

It must be emphasised that the conclusions and recommendations expressed in this archaeological heritage sensitivity investigation are based on the visibility of archaeological sites/features and may not therefore, reflect the true state of affairs. Many sites/features may be covered by soil and vegetation and will only be located once this has been removed. In the event of such finds being uncovered, (such as 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. The onus is on the developer to ensure that this agreement is honoured in accordance with the National Heritage Act No. 25 of 1999.

It must also be clear that Archaeological Specialist Reports (AIA's) will be assessed by the relevant heritage resources authority. The final decision rests with the heritage resources authority, which should grant a permit or a formal letter of permission for the destruction of any cultural sites.

APPENDIX A: brief legislative requirements

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

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.

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.

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, powerline, 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^2 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 A: IDENTIFICATION OF ARCHAEOLOGICAL FEATURES AND MATERIAL FROM INLAND AREAS: guidelines and procedures for developers

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 human remains are buried in a flexed position on their side, but are also found buried in a sitting position with a flat stone capping. Developers are requested to be on alert for the possibility of uncovering such remains.

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 m^2 in extent, should be reported to an archaeologist.

Large stone cairns

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.

Stone artefacts

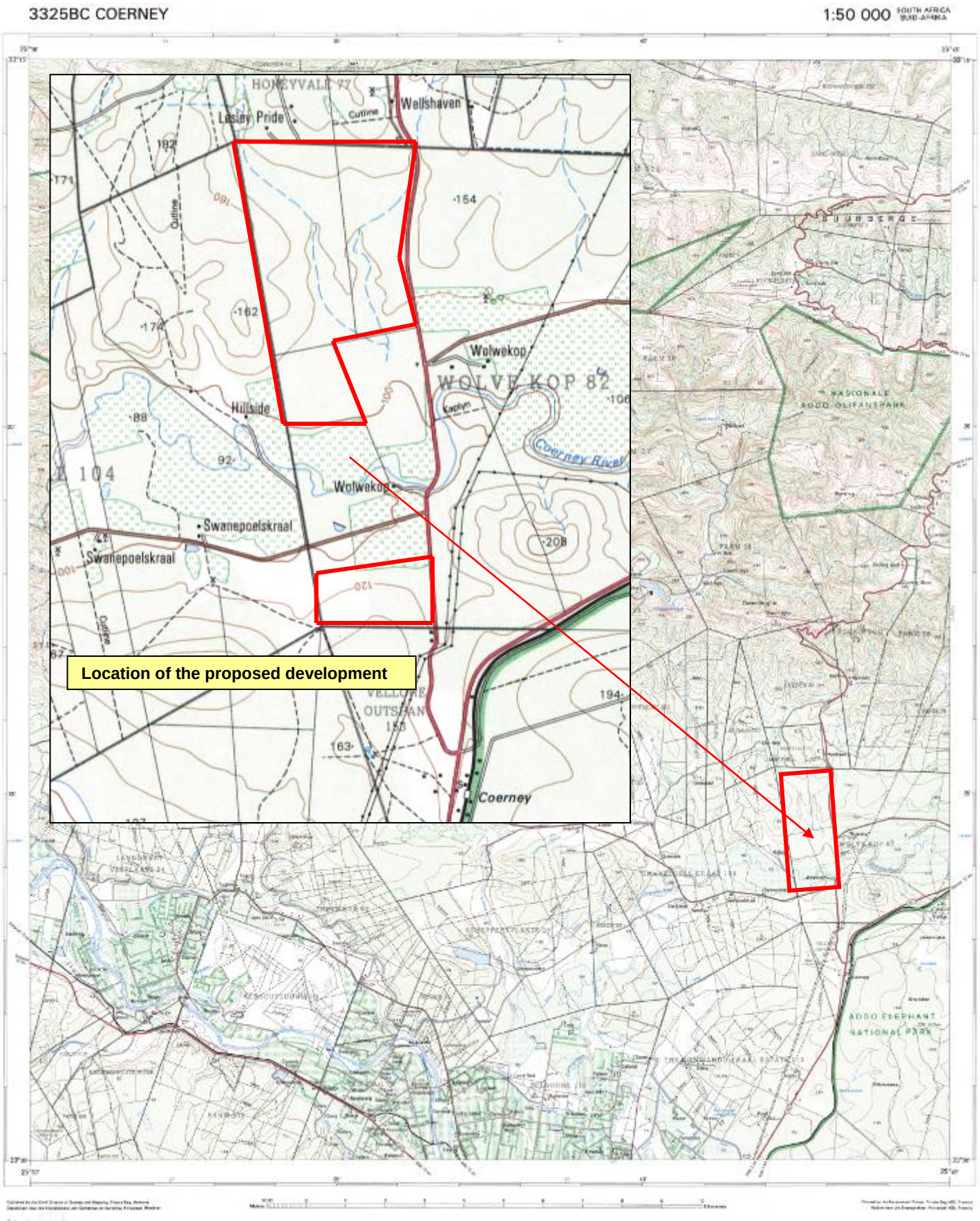
These are difficult for the layman to identify. However, large accumulations of flaked stones which do not appear to have been distributed naturally should be reported. If the stone tools are associated with bone remains, development should be halted immediately and archaeologists notified.

Fossil bone

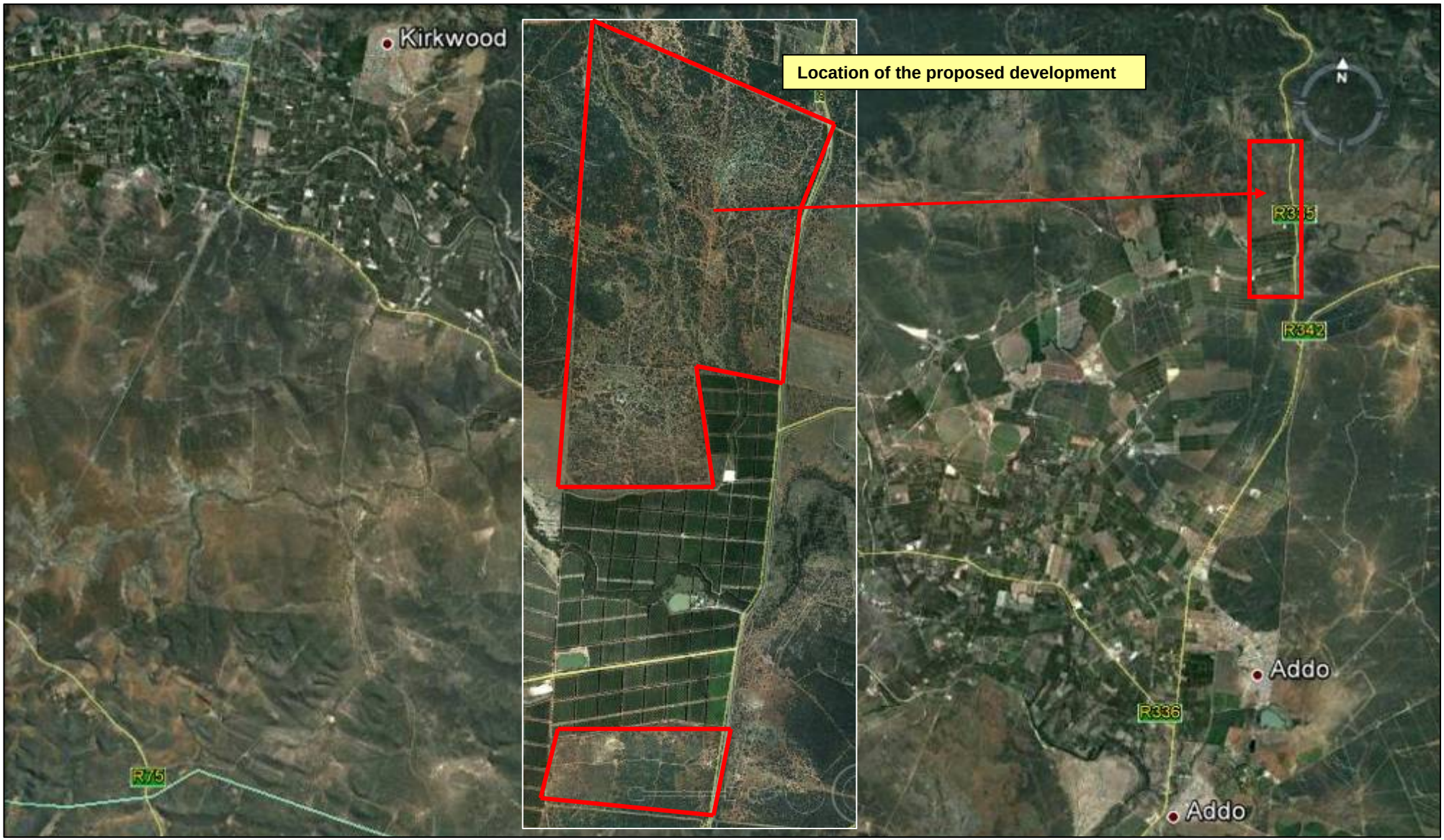
Fossil bones may be found embedded in geological deposits. Any concentrations of bones, whether fossilized or not, should be reported.

Historical artefacts or features

These are easy to identify and include foundations of buildings or other construction features and items from domestic and military activities**.**



Map 1. 1:50 000 Maps indicating the location of the development. The red lines outline the approximate size of the development.



Map 2. Aerial images indicating the location of the proposed footprint for development. The red lines outline the approximate size of the properties.