

**PROPOSED RESIDENTIAL DEVELOPMENT ON THE
FARM SWEETVALE NO. 15257, KZN**

FOR GREEN SCENE ENVIRONMENTAL

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Abbreviations

HP	Historical Period
IIA	Indeterminate Iron Age
LIA	Late Iron Age
EIA	Early Iron Age
ISA	Indeterminate Stone Age
ESA	Early Stone Age
MSA	Middle Stone Age
LSA	Late Stone Age
HIA	Heritage Impact Assessment
PIA	Palaeontological Impact Assessment

INTRODUCTION

“The property is located inland of Margate within the Ray Nkonyeni (local) and Ugu (district) Municipalities, and is skirted on the east by the P200 Gamalakhe Road.

The site comprises an elevated southern component with moderate to steep slopes forming valley lines falling north towards the Ivungu River which forms the northern boundary of the site. Existing development on the site comprises a farmstead complex associated with the historical usage of the site, and a skills centre and a restaurant forming the more recent components of development. The bulk of the remainder comprises former grazing/paddock lands and crop lands that are separated by defining hedges and trees.

The steeper areas have slopes steeper than 1:3, requiring careful consideration and special attention when designing development and developing the site. Typically, these gradients are considered uneconomical for development.

The low lying areas display signs of groundwater seepage and other characteristics of wetlands. The geotechnical investigation and the wetland delineation study define these areas in more detail.

Rocky outcrops across the site indicate shallow soils overlying both boulders and bedrock of Natal Group Sandstone. This was confirmed during the geotechnical investigation by augers and DCP results, with soil mantles of less than 2 metres over inferred rock (either bedrock or loose boulders) being recorded in all cases. The geotechnical report indicated the possible presence of a geotechnical fault line running roughly north-south across the site. However, the scale, orientation, location and indeed presence require detailed investigation

to confirm. A further clarification document issued by Drennan Maud (dated 23 August 2019) indicates, however, that the engineering implications of the fault are not prohibitive to development. The qualities of good road-building material were noted in the colluvium and the sandstone. The shallow rock depths were noted as a potential challenge for the installation of underground services, potentially requiring ripping and/or blasting. There is limited scope for the latter in the immediate vicinity of the existing overhead electrical infrastructure. Cautions were also expressed concerning the establishment of platforms and the impact thereof on slope stability. Additional geotechnical guidance will be necessary at final design and construction stage to maintain slope stability.

The site has been vegetated by both indigenous and alien vegetation. A detailed delineation of the various types of indigenous vegetation has been undertaken by Terratest and integrated into the Site Development & Concept Plan produced by Plankonsult.

A 1:100 year floodline study has been calculated for this property by Bragge & Francis Consulting Engineers, which has been incorporated into the Site Development & Concept Plan produced by Plankonsult and the various engineering layouts produced by Bragge & Francis Consulting Engineers.

The developer proposes development of a Retirement Village with the following distinct structures:

These structures would be accessed via roads constructed as per the proposed road layout indicated on the SDP. These roads would also largely form the corridors by which water and sewerage lines would link with the proposed bulk connection (in the case of water) and de-centralised treatment works (in the case of sewage).

The existing restaurant and skills centre located on the east of the property would remain and would be supplemented by a farm stall/tourist centre facility along the P200. These three facilities (skills centre, restaurant and farm stall) would comprise, for the purpose of engineering services, a single node.

A second node would comprise units on the south-eastern, high-lying area of the property. A third node would comprise residential and service units on the lower-lying central and northern are of the property. The fourth node would comprise the majority of the residential units and would be located along the western, high-lying areas of the site” (Bragge & Francis 2019).

Umlando was requested to undertake a Heritage Impact Assessment of the proposed development. Figures 1 – 3 show the location of the development.

FIG. 1 GENERAL LOCATION OF THE PROPOSED DEVELOPMENT



FIG. 2: AERIAL OVERVIEW OF THE PROPOSED DEVELOPMENT



FIG. 3: TOPOGRAPHICAL MAP OF THE PROPOSED DEVELOPMENT (2002)

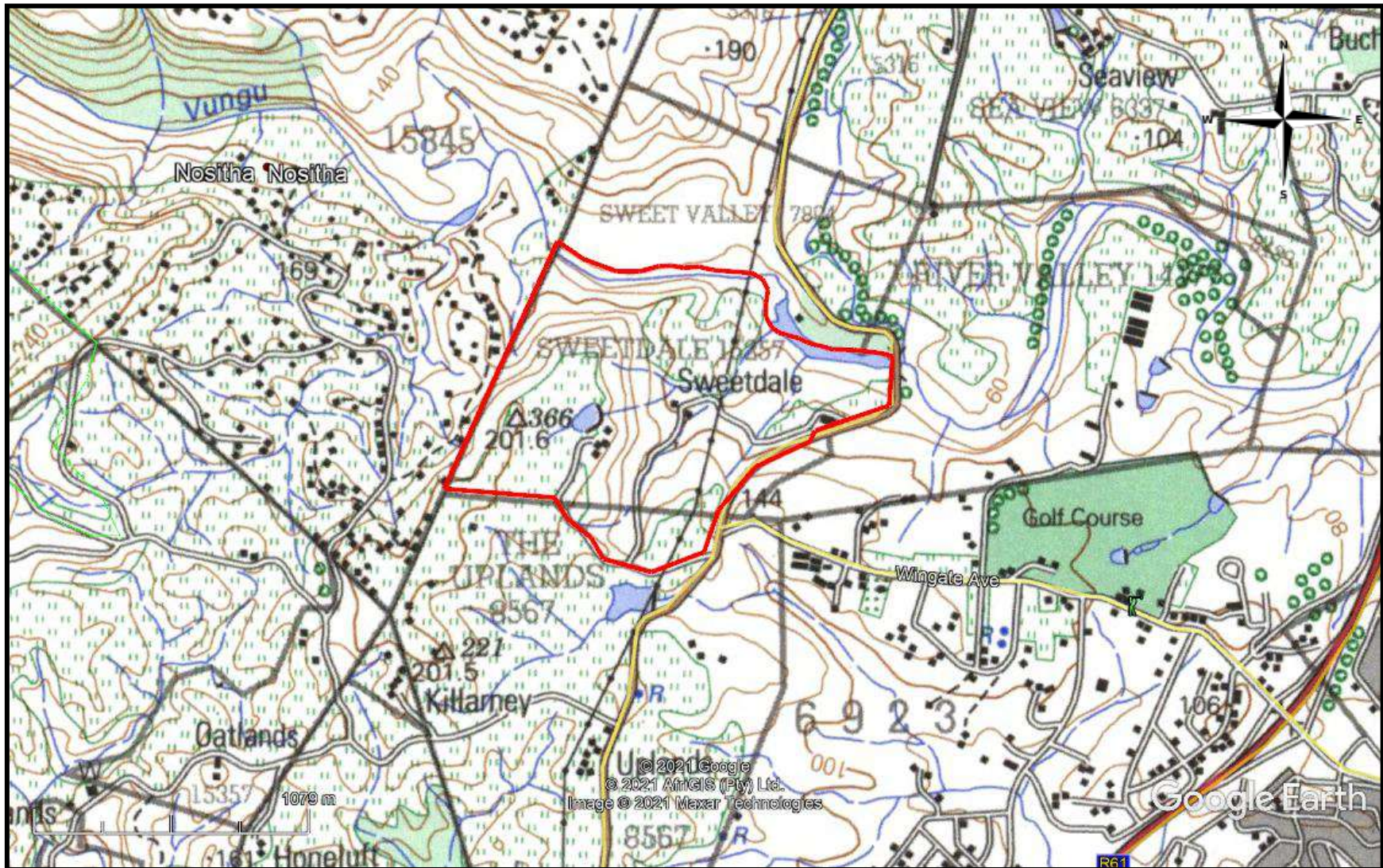


FIG. 4: SCENIC VIEWS OF THE STUDY AREA



KWAZULU NATAL AMAFA AND RESEARCH INSTITUTE, ACT 05, 2018

“General protection: Structures.—

- No structure which is, or which may reasonably be expected to be older than 60 years, may be demolished, altered or added to without the prior written approval of the Council having been obtained on written application to the Council.
- Where the Council does not grant approval, the Council must consider special protection in terms of sections 38, 39, 40, 41 and 43 of Chapter 9.
- The Council may, by notice in the *Gazette*, exempt—
- A defined geographical area; or
- defined categories of sites within a defined geographical area, from the provisions of subsection where the Council is satisfied that heritage resources falling in the defined geographical area or category have been identified and are adequately protected in terms of sections 38, 39, 40, 41 and 43 of Chapter 9.
- A notice referred to in subsection (2) may, by notice in the *Gazette*, be amended or withdrawn by the Council.

General protection: Graves of victims of conflict.—No person may damage, alter, exhume, or remove from its original position—

- the grave of a victim of conflict;
- a cemetery made up of such graves; or
- any part of a cemetery containing such graves, without the prior written approval of the Council having been obtained on written application to the Council.
- General protection: Traditional burial places.—
- No grave—
- not otherwise protected by this Act; and
- not located in a formal cemetery managed or administered by a local authority, may be damaged, altered, exhumed, removed from its original

position, or otherwise disturbed without the prior written approval of the Council having been obtained on written application to the Council.

The Council may only issue written approval once the Council is satisfied that—

- the applicant has made a concerted effort to consult with communities and individuals who by tradition may have an interest in the grave; and
- the applicant and the relevant communities or individuals have reached agreement regarding the grave.

General protection: Battlefield sites, archaeological sites, rock art sites, palaeontological sites, historic fortifications, meteorite or meteorite impact sites.—

- No person may destroy, damage, excavate, alter, write or draw upon, or otherwise disturb any battlefield site, archaeological site, rock art site, palaeontological site, historic fortification, meteorite or meteorite impact site without the prior written approval of the Council having been obtained on written application to the Council.
- Upon discovery of archaeological or palaeontological material or a meteorite by any person, all activity or operations in the general vicinity of such material or meteorite must cease forthwith and a person who made the discovery must submit a written report to the Council without delay.
- The Council may, after consultation with an owner or controlling authority, by way of written notice served on the owner or controlling authority, prohibit any activity considered by the Council to be inappropriate within 50 metres of a rock art site.
- No person may exhume, remove from its original position or otherwise disturb, damage, destroy, own or collect any object or material associated with any battlefield site, archaeological site, rock art site, palaeontological site, historic fortification, meteorite or meteorite impact site without the prior written approval of the Council having been obtained on written application to the Council.
- No person may bring any equipment which assists in the detection of metals and archaeological and palaeontological objects and material, or

- excavation equipment onto any battlefield site, archaeological site, rock art site, palaeontological site, historic fortification, or meteorite impact site, or use similar detection or excavation equipment for the recovery of meteorites, without the prior written approval of the Council having been obtained on written application to the Council.
- The ownership of any object or material associated with any battlefield site, archaeological site, rock art site, palaeontological site, historic fortification, meteorite or meteorite impact site, on discovery, vest in the Provincial Government and the Council is regarded as the custodian on behalf of the Provincial Government.”

METHOD

The method for Heritage assessment consists of several steps.

The first step forms part of the desktop assessment. Here we would consult the database that has been collated by Umlando. This databases contains archaeological site locations and basic information from several provinces (information from Umlando surveys and some colleagues), most of the national and provincial monuments and battlefields in Southern Africa (<http://www.vuvuzela.com/googleearth/monuments.html>) and cemeteries in southern Africa (information supplied by the Genealogical Society of Southern Africa). We use 1st and 2nd edition 1:50 000 topographical and 1937 aerial photographs where available, to assist in general location and dating of buildings and/or graves. The database is in Google Earth format and thus used as a quick reference when undertaking desktop studies. Where required we would consult with a local data recording centre, however these tend to be fragmented between different institutions and areas and thus difficult to access at times. We also consult with an historical architect, palaeontologist, and an historian where necessary.

The survey results will define the significance of each recorded site, as well as a management plan.

All sites are grouped according to low, medium, and high significance for the purpose of this report. Sites of low significance have no diagnostic artefacts or features. Sites of medium significance have diagnostic artefacts or features and these sites tend to be sampled. Sampling includes the collection of artefacts for future analysis. All diagnostic pottery, such as rims, lips, and decorated sherds are sampled, while bone, stone, and shell are mostly noted. Sampling usually occurs on most sites. Sites of high significance are excavated and/or extensively sampled. Those sites that are extensively sampled have high research potential, yet poor preservation of features.

Defining significance

Heritage sites vary according to significance and several different criteria relate to each type of site. However, there are several criteria that allow for a general significance rating of archaeological sites.

These criteria are:

1. State of preservation of:

- 1.1. Organic remains:
 - 1.1.1. Faunal
 - 1.1.2. Botanical
- 1.2. Rock art
- 1.3. Walling
- 1.4. Presence of a cultural deposit
- 1.5. Features:
 - 1.5.1. Ash Features
 - 1.5.2. Graves

- 1.5.3. Middens
- 1.5.4. Cattle byres
- 1.5.5. Bedding and ash complexes

2. Spatial arrangements:

- 2.1. Internal housing arrangements
- 2.2. Intra-site settlement patterns
- 2.3. Inter-site settlement patterns

3. Features of the site:

- 3.1. Are there any unusual, unique or rare artefacts or images at the site?
- 3.2. Is it a type site?
- 3.3. Does the site have a very good example of a specific time period, feature, or artefact?

4. Research:

- 4.1. Providing information on current research projects
- 4.2. Salvaging information for potential future research projects

5. Inter- and intra-site variability

- 5.1. Can this particular site yield information regarding intra-site variability, i.e. spatial relationships between various features and artefacts?
- 5.2. Can this particular site yield information about a community's social relationships within itself, or between other communities?

6. Archaeological Experience:

6.1. The personal experience and expertise of the CRM practitioner should not be ignored. Experience can indicate sites that have potentially significant aspects, but need to be tested prior to any conclusions.

7. Educational:

- 7.1. Does the site have the potential to be used as an educational instrument?
- 7.2. Does the site have the potential to become a tourist attraction?
- 7.3. The educational value of a site can only be fully determined after initial test-pit excavations and/or full excavations.

8. Other Heritage Significance:

- 8.1. Palaeontological sites
- 8.2. Historical buildings
- 8.3. Battlefields and general Anglo-Zulu and Anglo-Boer sites
- 8.4. Graves and/or community cemeteries
- 8.5. Living Heritage Sites
- 8.6. Cultural Landscapes, that includes old trees, hills, mountains, rivers, etc related to cultural or historical experiences.

The more a site can fulfill the above criteria, the more significant it becomes. Test-pit excavations are used to test the full potential of an archaeological deposit. This occurs in Phase 2. These test-pit excavations may require further excavations if the site is of significance (Phase 3). Sites may also be mapped and/or have artefacts sampled as a form of mitigation. Sampling normally occurs when the artefacts may be good examples of their type, but are not in a primary archaeological context. Mapping records the spatial relationship between features and artefacts. Table 1 lists the grading system.

TABLE 1: SAHRA GRADINGS FOR HERITAGE SITES

SITE SIGNIFICANCE	FIELD RATING	GRADE	RECOMMENDED MITIGATION
High Significance	National Significance	Grade 1	Site conservation / Site development
High Significance	Provincial Significance	Grade 2	Site conservation / Site development
High Significance	Local Significance	Grade 3A / 3B	
High / Medium Significance	Generally Protected A		Site conservation or mitigation prior to development / destruction
Medium Significance	Generally Protected B		Site conservation or mitigation / test excavation / systematic sampling / monitoring prior to or during development / destruction
Low Significance	Generally Protected C		On-site sampling monitoring or no archaeological mitigation required prior to or during development / destruction

RESULTS

DESKTOP STUDY

The desktop study consisted of analysing various maps for evidence of prior habitation in the study area, as well as for previous archaeological surveys. Very few heritage sites occur in the general area; however, this is due to a lack of research and studies (fig. 5). No known sites occur in the study area.

The earliest available (via internet) Surveyor General map of Sweet Valley dates to 1955 (fig. 6). However, the original title deed map for The Uplands dates to 1890, and this has Sweet Valley as being mapped (fig. 7). One can assume Sweet Valley was first surveyed for a Title Deed at a similar time.

The 1937 aerial photograph indicates that the study area is mostly grasslands (fig. 8). No built structures are visible.

The 1972 topographical map indicates that there are seven built structures and two houses (or huts) within the study area (fig. 9). Only b3 and b7 remain. Their locations are given in Table 2.

TABLE 2: LOCATION OF BUILT STRUCTURES IN THE STUDY AREA IN 1972

Name	Latitude	Longitude	Description
b1	-30.829569032	30.344698761	Building
b2	-30.831012050	30.342673182	Building
b3	-30.831990119	30.342775837	Building
b4	-30.832597457	30.342036139	Building
b5	-30.834276710	30.346979313	Building
b6	-30.832212676	30.348560904	Building
b7	-30.831098738	30.345942489	Building
h1	-30.831754499	30.345560284	House
h2	-30.828417235	30.347601637	House

FIG. 5: LOCATION OF KNOWN HERITAGE SITES IN THE GENERAL AREA

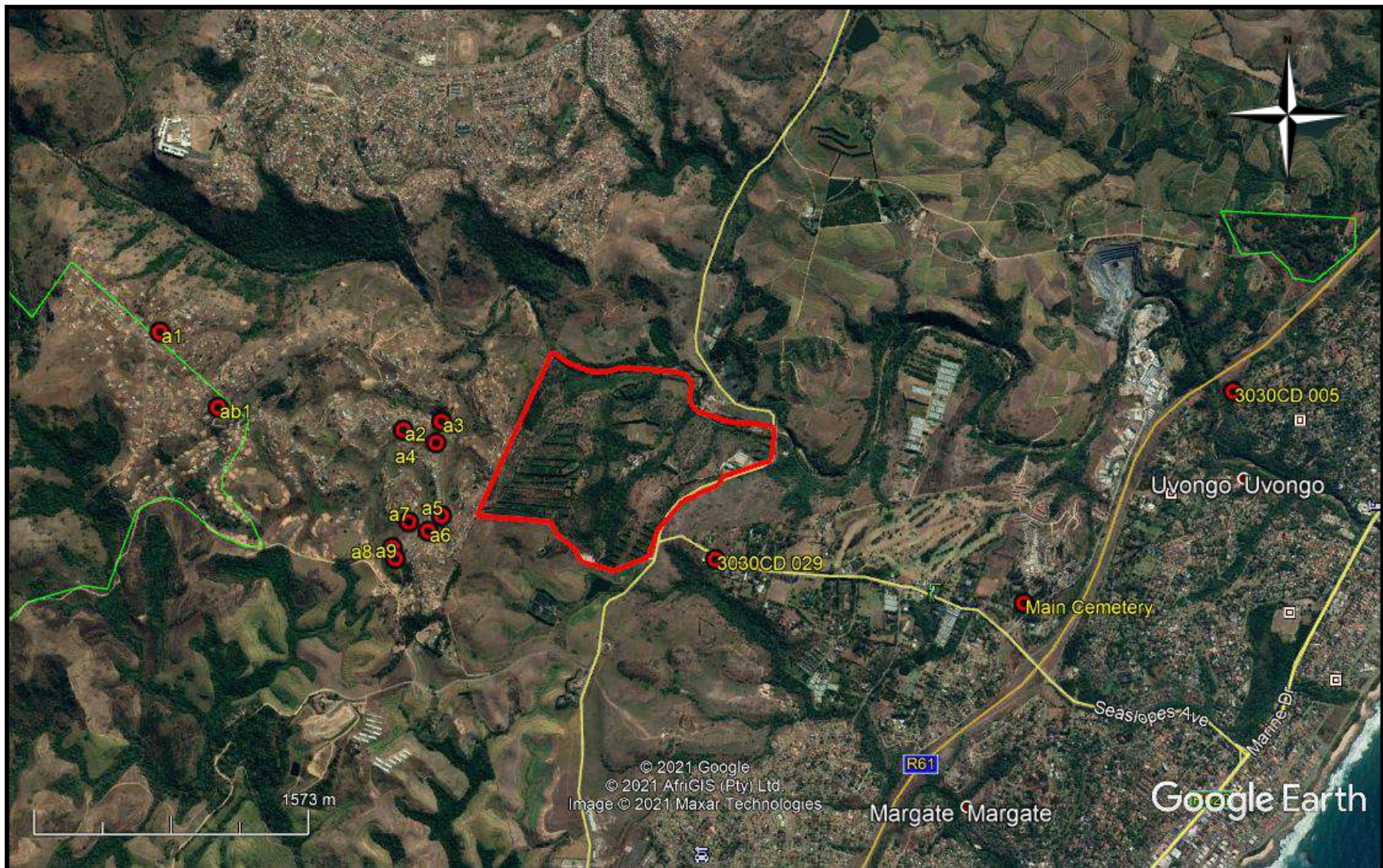


FIG. 6: SURVEYOR GENERAL MAP FOR SWEET VALLEY (1955)

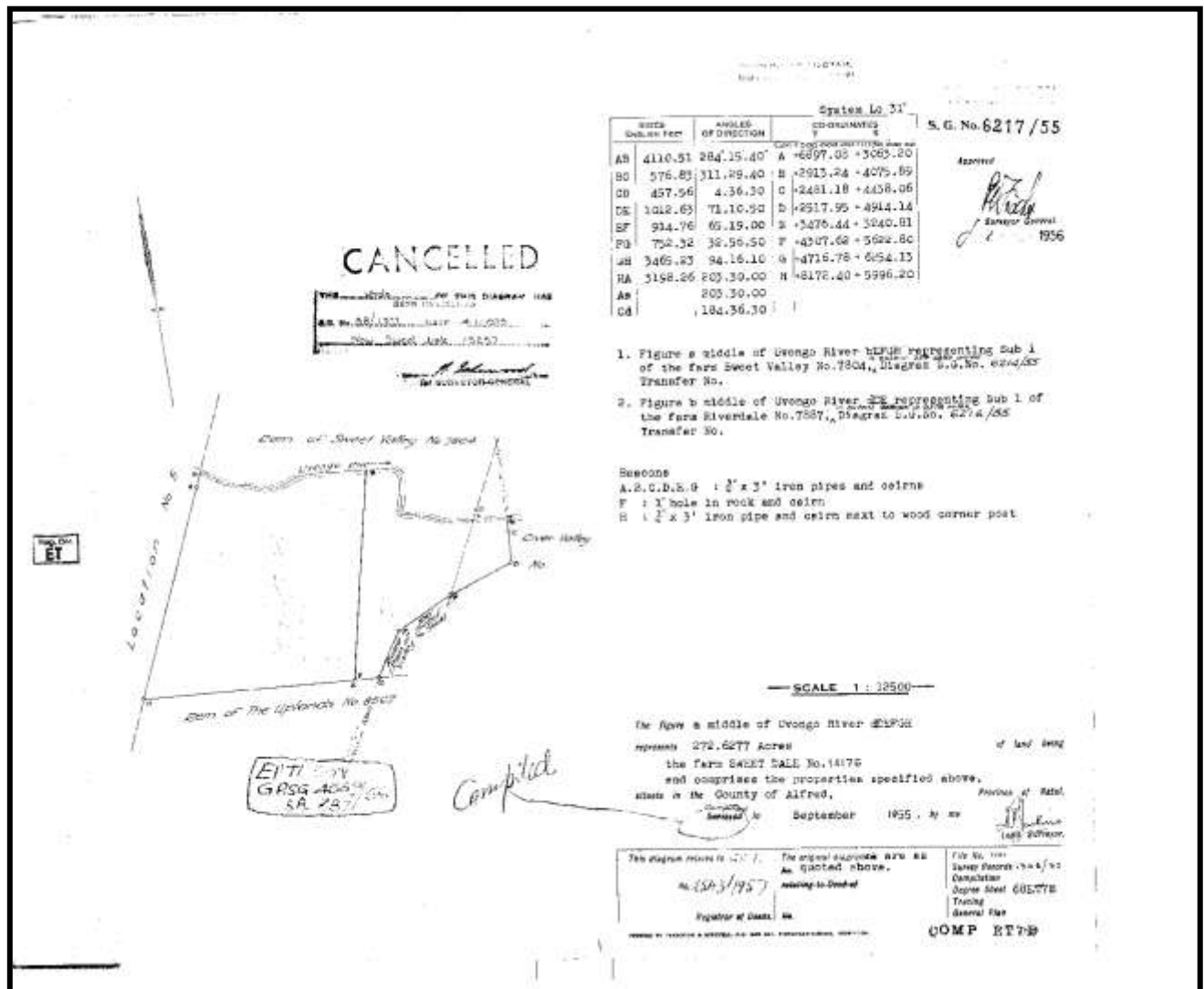


FIG. 7: SURVEYOR GENERAL MAP FOR THE UPLANDS (1890)

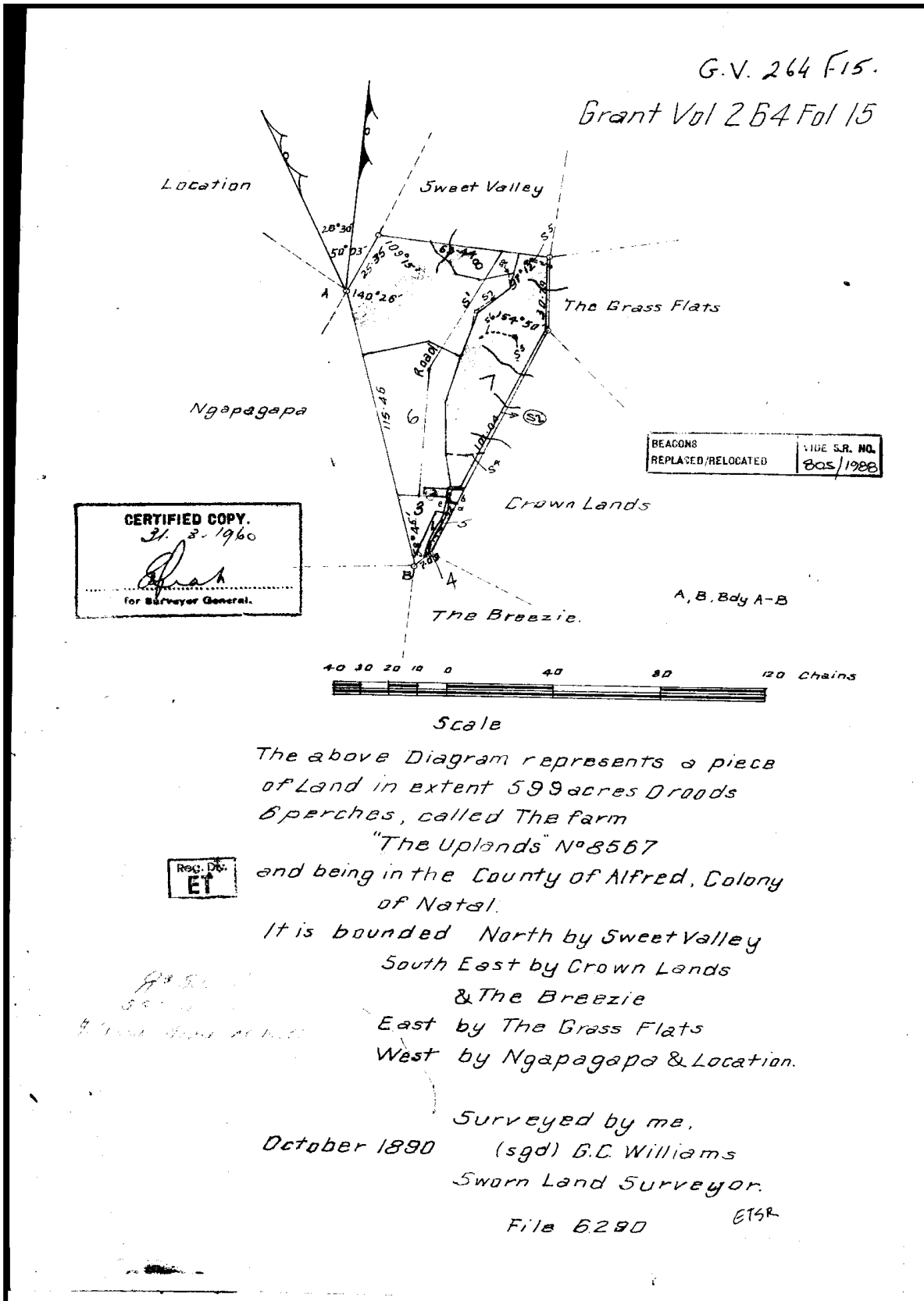
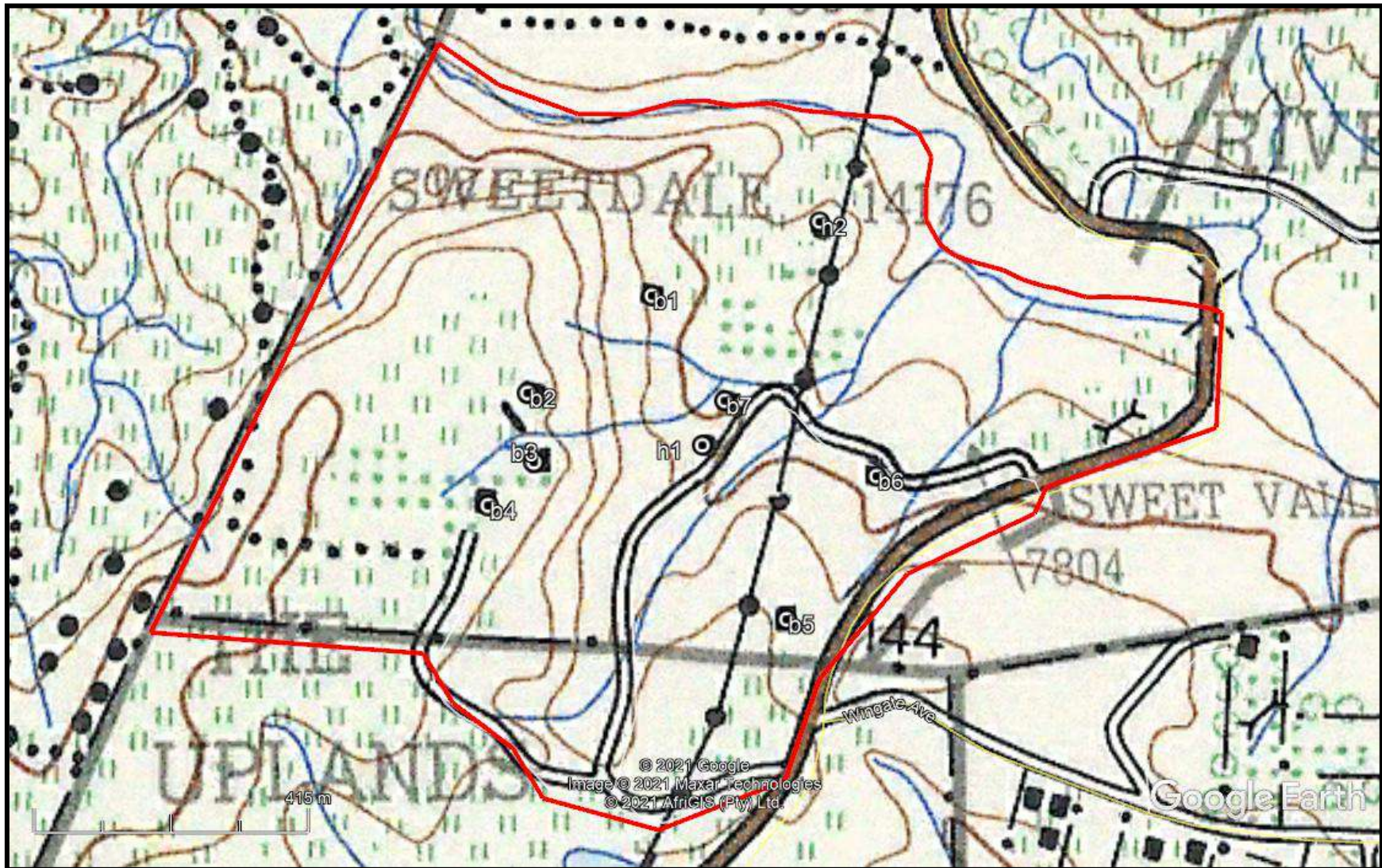


FIG. 8: LOCATION OF STUDY AREA IN 1937



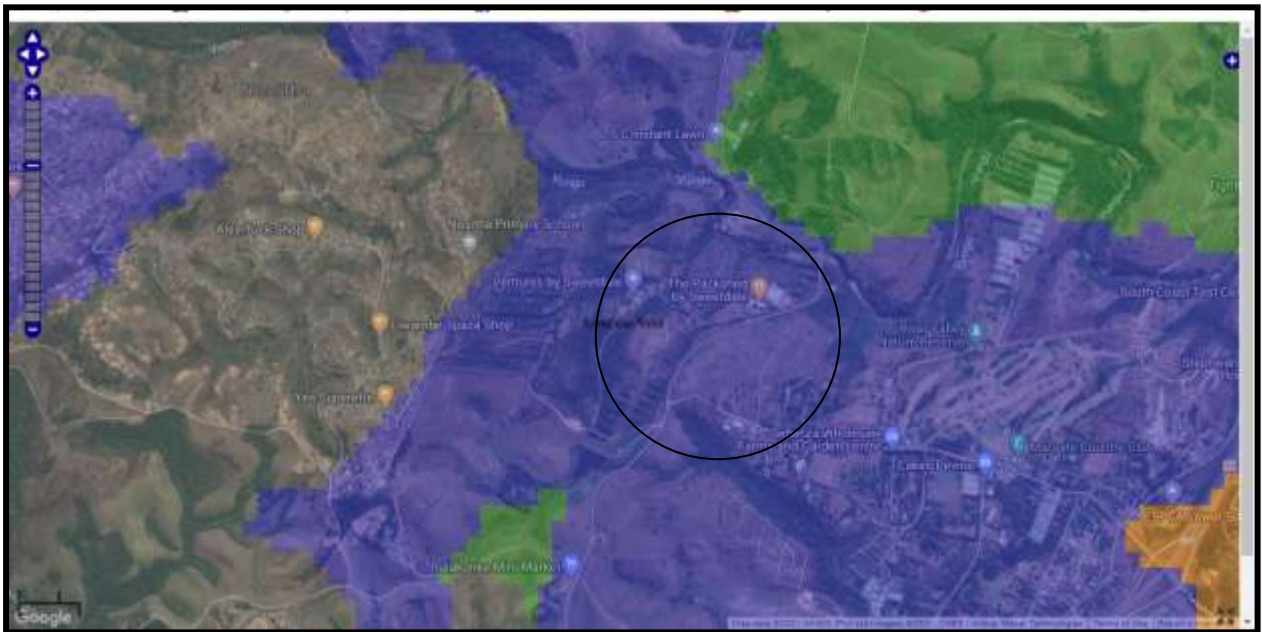
FIG. 9: LOCATION OF STUDY AREA IN 1972



PALAEONTOLOGICAL SENSITIVITY

The area is in an area of very low palaeontological sensitivity (fig. 10). No further palaeontological mitigation is required.

FIG. 10: PALAEONTOLOGICAL SENSITIVITY MAP



COLOUR	SENSITIVITY	REQUIRED ACTION
RED	VERY HIGH	field assessment and protocol for finds is required
ORANGE/YELLOW	HIGH	desktop study is required and based on the outcome of the desktop study, a field assessment is likely
GREEN	MODERATE	desktop study is required
BLUE	LOW	no palaeontological studies are required however a protocol for finds is required
GREY	INSIGNIFICANT/ZERO	no palaeontological studies are required
WHITE/CLEAR	UNKNOWN	these areas will require a minimum of a desktop study. As more information comes to light, SAHRA will continue to populate the map.

The desktop study indicates that the area is unlikely to yield significant archaeological sites, and probably only isolated artefacts. The study does indicate that buildings over 60 years in age might occur and these need to be assessed if they still exist.

FIELD SURVEY

The field survey was undertaken on the 10 February 2021. Ground visibility was poor due to dense leaf and grass cover. Each area that was noted on the 1972 map was visited

The built structure noted as 'b1' in the desktop study was probably a small building beside the road. Currently there is a small terraced area under dense vegetation (fig. 11).

FIG. 11: TERRACED AREA NEAR 'B1'



The built structure of 'b4' occurs near a dam. There is no building, but a cleared, and slightly flattened, area, with low stone walling to the east (fig. 12). The wall consists of individual boulders in a row. It appears as if the wall is in ruins.

The walling is of low significance and is not datable. No further mitigation is required.

FIG. 12: REMAINS OF WALLING & A CLEARED AREA AT B4



Feature 'b7' is the main building on the property. It is the accommodation called Villa Colinas and is not older than 60 years in age (fig. 13). It has undergone renovations from the original buildings according to its web page.

FIG. 13: VILLA COLINAS (B7)



All other built structures noted in the desktop no longer exist.

RECOMMENDATIONS

The proposed development occurs in an area that is of low palaeontological and archaeological significance. The terrain is often too steep, or of incorrect geology, to be conducive for either types of heritage sites.

Most of the built structures noted in the desktop are destroyed at some stage in the past. Apart from the two recent buildings, there are only the remains of a wall. This wall cannot be dated and is of low significance.

No further mitigation should be required for the proposed development.

CONCLUSION

A heritage survey was undertaken for the proposed Sweetvale residential development. An initial study indicated that buildings did occur on the property in the past, and these might be older than 60 years. The aim of the survey was to assess the status of these buildings and to recommend further mitigation if required.

Two buildings still exist and are not older than 60 years in age. The partial remains of an outer wall exist but are in ruin with only a few boulders marking the wall. These are of low heritage significance.

The project should be exempt from further heritage mitigation.

REFERENCES

Bragge & Francis 2019. Proposed Development Approval Of The Farm Sweetvale No. 15257 (Previously Sweetdale No. 14176) Margate. Engineering Services Report

EXPERIENCE OF THE HERITAGE CONSULTANT

Gavin Anderson has a M. Phil (in archaeology and social psychology) degree from the University of Cape Town. Gavin has been working as a professional archaeologist and heritage impact assessor since 1995. He joined the Association of Professional Archaeologists of Southern Africa in 1998 when it was formed. Gavin is rated as a Principle Investigator with expertise status in Rock Art, Stone Age and Iron Age studies. In addition to this, he was worked on both West and East Coast shell middens, Anglo-Boer War sites, and Historical Period sites.

DECLARATION OF INDEPENDENCE

I, Gavin Anderson, declare that I am an independent specialist consultant and have no financial, personal or other interest in the proposed development, nor the developers or any of their subsidiaries, apart from fair remuneration for work performed in the delivery of heritage assessment services. There are no circumstances that compromise the objectivity of my performing such work.

A handwritten signature in black ink, appearing to read 'G. Anderson', with a horizontal line underneath.

Gavin Anderson
Archaeologist/Heritage Impact Assessor