

HERITAGE SURVEY OF THE PROPOSED
AQUADENE HOUSING PROJECT, KWA-ZULU NATAL

FOR RENEE ROYAL

DATE: 3 JULY 2012

By Gavin Anderson

Umlando: Archaeological Tourism and Resource
Management

PO Box 102532, Meerensee, 3901

Phone/fax: 035-7531785 Fax: 0865445631

Cell: 0836585362



TABLE OF CONTENT

HERITAGE SURVEY OF THE PROPOSED AQUADENE HOUSING PROJECT, KWA-ZULU NATAL	1
INTRODUCTION.....	3
KWAZULU-NATAL HERITAGE ACT NO. 4 OF 2008	7
METHOD.....	9
Defining significance	10
RESULTS.....	13
DESKTOP STUDY.....	13
FIELD SURVEY	17
CONCLUSION	19

TABLE OF FIGURES

FIG. 1 GENERAL LOCATION OF THE PROPOSED HOUSING DEVELOPMENT	4
FIG. 2: AERIAL OVERVIEW OF THE PROPOSED HOUSING DEVELOPMENT	5
FIG. 3: TOPOGRAPHICAL MAP OF THE PROPOSED HOUSING DEVELOPMENT	6
FIG. 4: LOCATION OF KNOWN ARCHAEOLOGICAL SITES IN THE GENERAL AREA.....	14
FIG. 5: LOCATION OF THE HOUSING PROJECT IN 1937	15
FIG. 6: LOCATION OF HOUSING PROJECT IN 1948	16
FIG. 7: NORTHERN SECTION OF PHASE 4 DEVELOPMENT	17
FIG. 8: EASTERN SECTION OF PHASE 1 DEVELOPMENT	18

INTRODUCTION

Umlando was contracted by Renee Royal to undertake an HIA of the proposed Aquadene development. “The uMhlathuze Municipality propose expanding the existing Aquadene housing settlement. Preliminary proposed layout plans indicate the following erven: 2311 x “Special Residential 1”; 10 x “General Residential 1”; 8 x “Limited Commercial 2”; 3 x “Local Authority”; 1 x “Civic 2”; 1 x “Professional”; 9 x “Educational”; 11 x “Devotional”; several “Public Open Spaces”; and associated structures and/or infrastructure. It should be noted that this may change, being informed by the public participation process and as detailed planning evolves. Together with the erven allocated for higher density housing there is potential for more than 3000 residential units to be developed in all. The total extent of the proposed development is approximately 133ha. It is proposed that the development occur in five separate phases, sequencing of the phases may vary: Phase 1 is to occur on Portion 13 (of 1) of Erf 11488, Richards Bay; Phase 2 will occur on Portion 12 (of 1) of Erf 11488, Richards Bay; Phase 3 is to occur on Portion of Rem of Portion 1 of Erf 11488, Richards Bay; Phase 4 is to occur on Portion of Rem of Portion 1 of Erf 11488, Richards Bay; and Phase 5 is to occur on Portion of Erf 11471 and Portion of Rem of Erf 11472, both of Richards Bay. The site is located along the MR231 (North Central Arterial) north of the Richards Bay Central Business District (CBD)” (BID: Proposed Expansion of Aquadene Housing Settlement, Richards Bay 2010). Figures 1 – 3 show the location of the development.

The following impacts will occur:

- Roads
- Water
- Sewerage Infrastructure
- Stormwater
- Electrical infrastructure

No heritage sites were noted during the survey.

FIG. 1 GENERAL LOCATION OF THE PROPOSED HOUSING DEVELOPMENT

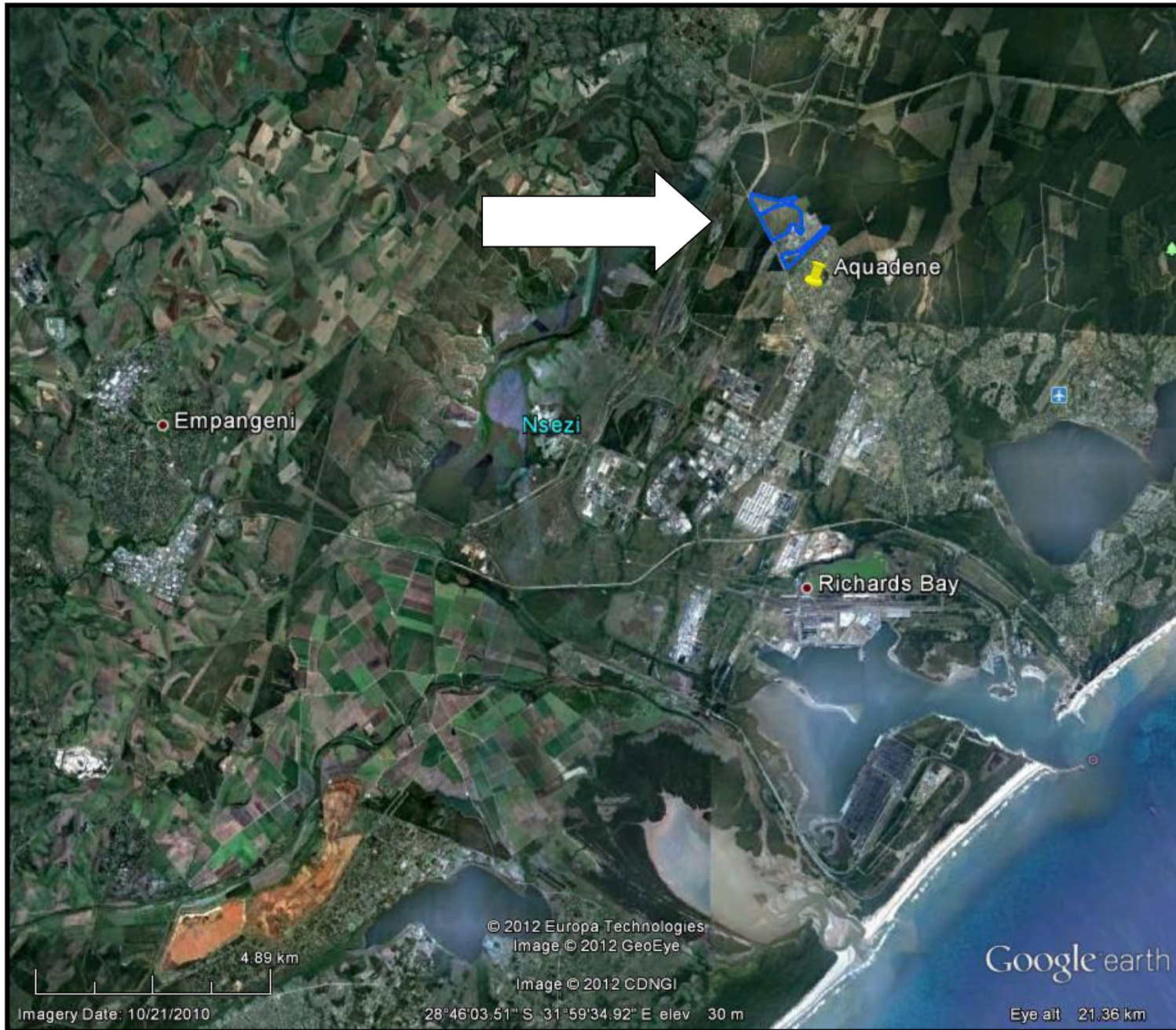
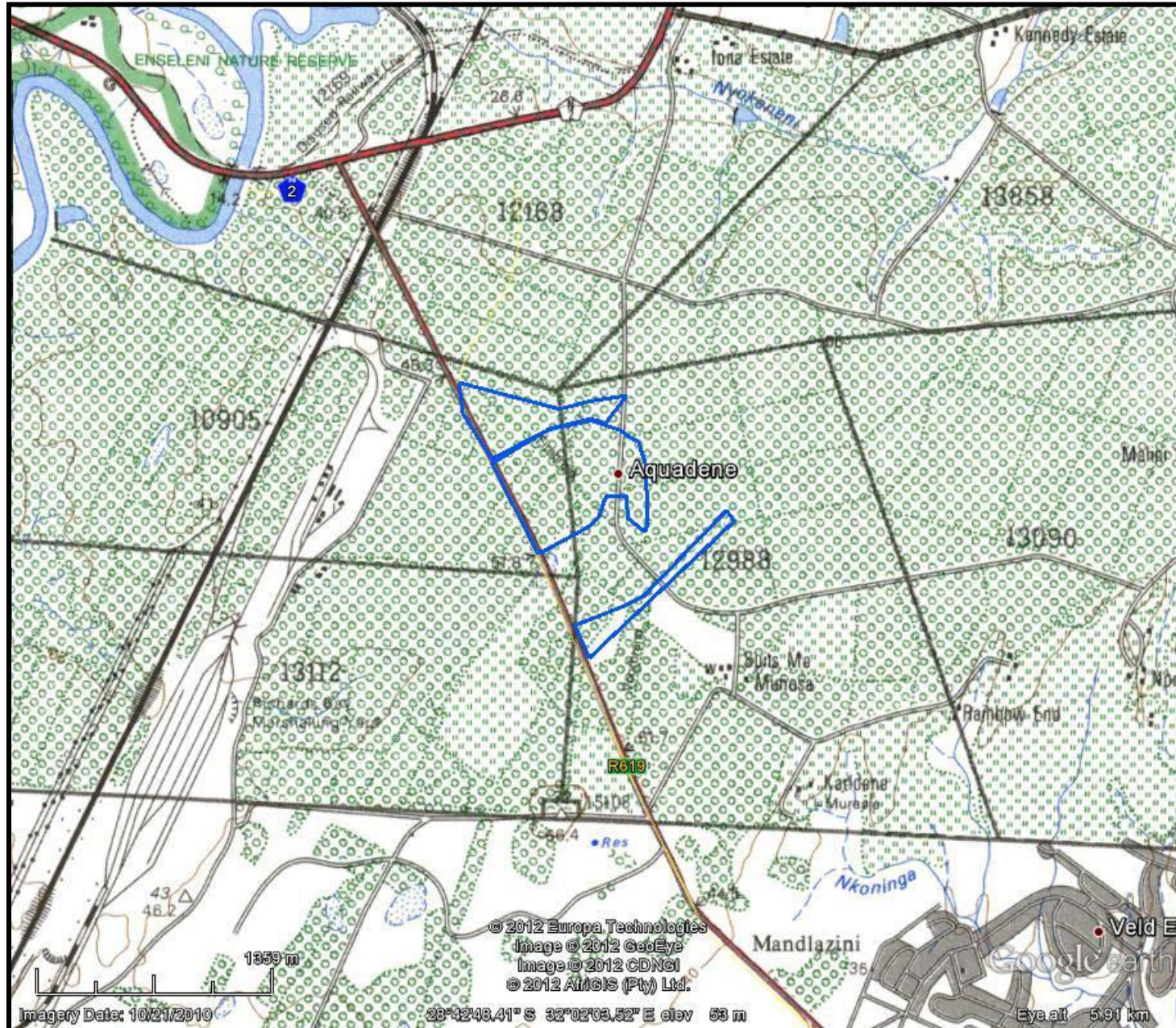


FIG. 2: AERIAL OVERVIEW OF THE PROPOSED HOUSING DEVELOPMENT



FIG. 3: TOPOGRAPHICAL MAP OF THE PROPOSED HOUSING DEVELOPMENT



KWAZULU-NATAL HERITAGE ACT NO. 4 OF 2008

1. “ General protection: Structures.—
 - a. 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.
 - b. 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.
2. The Council may, by notice in the *Gazette*, exempt—
 - a. a defined geographical area; or
 - b. 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.
 - c. A notice referred to in subsection (2) may, by notice in the *Gazette*, be amended or withdrawn by the Council.
3. General protection: Graves of victims of conflict.—No person may damage, alter, exhume, or remove from its original position—
 - a. the grave of a victim of conflict;
 - b. a cemetery made up of such graves; or
 - c. 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.
4. General protection: Traditional burial places.—
 - a. No grave—
 - b. not otherwise protected by this Act; and
 - c. 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.

5. The Council may only issue written approval once the Council is satisfied that—
 - a. the applicant has made a concerted effort to consult with communities and individuals who by tradition may have an interest in the grave; and
 - b. the applicant and the relevant communities or individuals have reached agreement regarding the grave.
 - c. 36. General protection: Battlefield sites, archaeological sites, rock art sites, palaeontological sites, historic fortifications, meteorite or meteorite impact sites.—
6. 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.
7. 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.
8. 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.
9. 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.

10. 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.
11. 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.” (KZN Heritage Act of 2008)

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 settlements with 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 use of historical maps allows us to note the locations of potential heritage sites in areas where the vegetation is too dense, or where there is no physical evidence of a settlement. That is, some areas have a high rate of deterioration of archaeological/organic remains, and human graves are generally ephemerally marked or demarcated with organic remains. By using the maps we can indicate sensitive areas and suggest appropriate management plans.

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.

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. Several archaeological sites have been recorded within a 10km radius of the proposed development (Anderson and Anderson, 20; Anderson 20) (fig. 4). If the radius was extended to 30km then nearly 400 archaeological sites would be noted. The database thus suggests that the affected area is archaeologically sensitive. The sites include Early Stone Age, Middle Stone Age, Late Stone Age, Early Iron Age, Late Iron Age and Historical Period artefacts. These sites vary in significance.

The 1937 aerial photographs indicate that there are no human settlements within the affected area (fig. 5). The aerial photographs also indicate that there were several wetlands and/or lakes in the area. Most of these do not currently exist and may be related to drainage lines, afforestation, etc. The aerial photographs do show settlements occurring nearby, but as low density.

The 1947 topographical map indicates that there are still no human settlements in the affected area (fig. 6). Furthermore the wetlands still exist and afforestation has commenced along the northern part of the affected area. By 2004 (fig. 2) most of the affected area was under afforestation, while Phase 3 was grassed. The maps do show settlements occurring nearby, but as low density.

Afforestation has a high negative impact on archaeological sites in that the roots system disturbs potential cultural horizons. The older practice of destumping with tractors further damaged archaeological sites. My experience is that archaeological sites in afforested areas tend to be in secondary contexts and have little value.

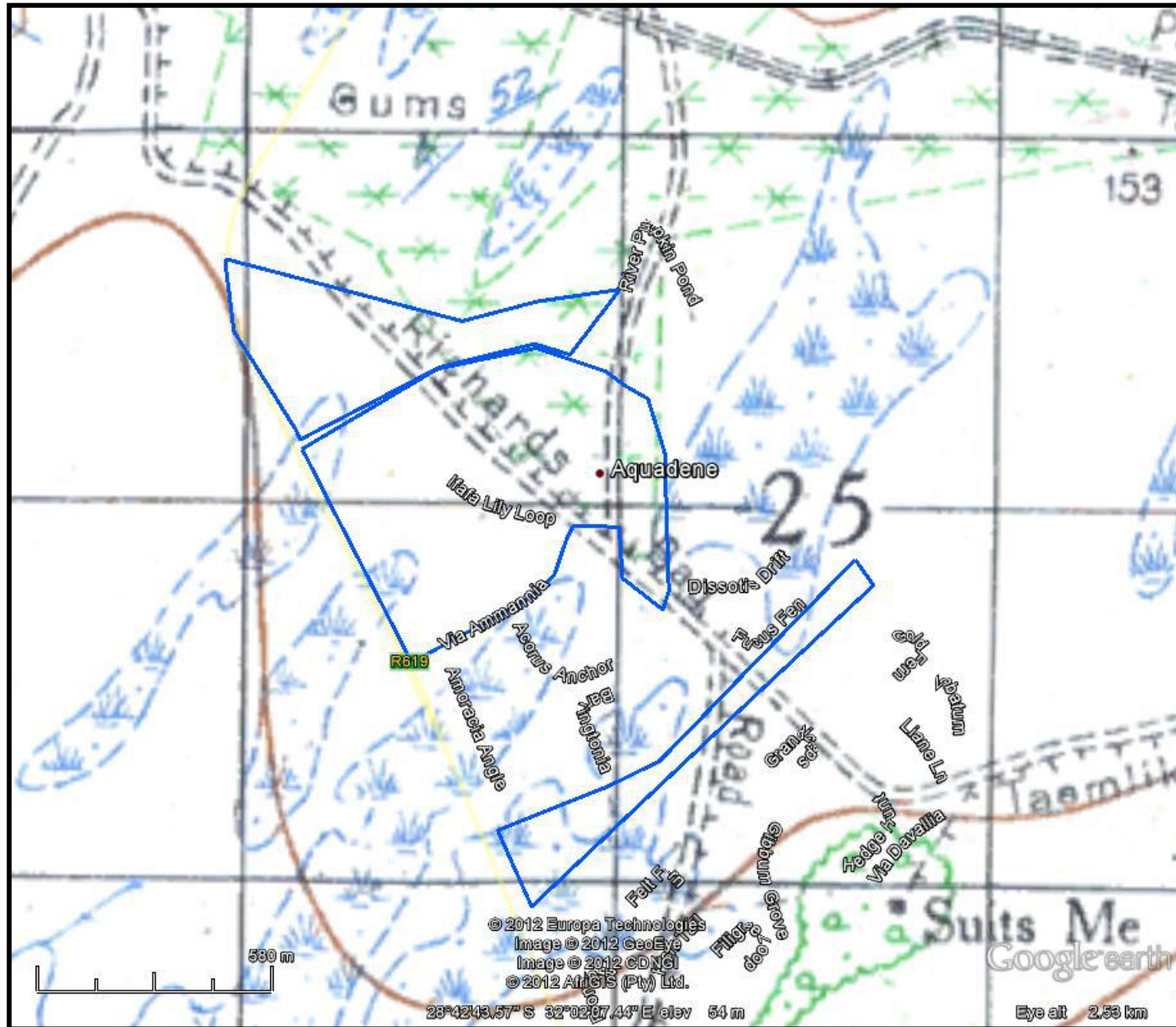
FIG. 4: LOCATION OF KNOWN ARCHAEOLOGICAL SITES IN THE GENERAL AREA



FIG. 5: LOCATION OF THE HOUSING PROJECT IN 1937



FIG. 6: LOCATION OF HOUSING PROJECT IN 1948



FIELD SURVEY

The field survey was undertaken 3 July 2012. Development Phases 1 and 4 had been recently burnt and the area was very clear while the dirt roads used by afforestation allowed for good visibility (fig. 7 - 8). Phase 3 was mostly grassed with poor visibility. There were many excavated lines and pits throughout the area and this gave a sample of the stratigraphy of the area.

FIG. 7: NORTHERN SECTION OF PHASE 4 DEVELOPMENT



FIG. 8: EASTERN SECTION OF PHASE 1 DEVELOPMENT



Despite the area being very open, no archaeological sites, or single artefacts, were observed in any of the three development areas. This could be a result of the area being very close to a wetland, and thus in an unfavourable area. However, I believe it is more a case of intense farming activity that has dispersed any potential artefacts. The recorded archaeological site ~1k to the north only consisted of a few pottery sherds. Other nearby sites have a low density of artefacts.

Even though no archaeological sites were recorded, there may be a very small chance of human remains occurring below the surface. Amafa KZN should be informed immediately if any human skeletons are discovered during construction.

A palaeontological Impact (desktop) Assessment was not undertaken as the servitudes will not reach the original seabeds several meters below the surface.

CONCLUSION

A heritage survey was undertaken for the proposed Aquadene Development. Various buildings related residential development will be built, with related servitudes. The desktop study indicated that archaeological sites and more recent settlements do occur in the general area. These features do however occur sparsely across the landscape.

No heritage sites were noted during the survey.