

**HERITAGE SURVEY OF THE PROPOSED
PHOTOVOLTAIC AND WIND TURBINE FARM AT
NCORA**

FOR COASTAL ENVIRONMENTAL SERVICES

DATE: 9 FEBRUARY 2011

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

INTRODUCTION.....	4
NATIONAL HERITAGE RESOURCES ACT OF 1999.....	9
METHOD.....	11
RESULTS.....	14
Desktop Study.....	16
NCO01.....	22
NCO02.....	23
NCO03 and NC012.....	23
NCO04.....	25
NCO05.....	26
NCO06.....	27
NCO07.....	27
NCO08.....	30
NCO09.....	30
NCO010.....	32
NCO011a.....	32
NCO011b.....	34
SITE 01.....	35
SITE 02.....	36
SITE 04.....	38
SITE 05.....	38
SITE 08.....	39
SITES 012, 013, 021, 022, 028, 029, 053, 054 and 055.....	41
SITE 015.....	42
SITES 033 - 040.....	42
SITES 041 - 049.....	43
SITE 052.....	48
Palaeontology.....	48
MANAGEMENT PLAN.....	49
Photovoltaic area.....	49
Cable line.....	50
CONCLUSION.....	54
REFERENCES.....	55
APPENDIX A.....	56
SITE RECORD FORMS.....	56

TABLE OF FIGURES

FIGURE 1 GENERAL LOCATION OF THE NNCORA WIND TURBINE FARM.....	5
FIGURE 2: AERIAL OVERVIEW OF THE STUDY AREA WITH TURBINE AND PHOTOVOLTAIC LOCATIONS.....	6
FIGURE 3a: 1995 TOPOGRAPHICAL MAP OF THE NORTHERN STUDY AREA....	7
FIGURE 3b: 1995 TOPOGRAPHICAL MAP OF THE SOUTHERN STUDY AREA....	8
FIGURE 4a: LOCATION OF HERITAGE SITES (NORTHERN SECTION) IN 1964.	17
FIGURE 4b: LOCATION OF HERITAGE SITES (CENTRAL SECTION) IN 1964....	18
FIGURE 4c: LOCATION OF HERITAGE SITES (SOUTHERN SECTION) IN 1964.	19

TABLE 1: SUMMARY OF SITES OBSERVED IN THE DESKTOP SURVEY	20
FIGURE 5: LOCALITY VIEW OF SOUTHERN HILL, PHOTOVOLTAIC AREA AND NORTHERN HILL	21
FIGURE 6: FARM BUILDINGS AT NC01	22
FIGURE 7: ABANDONED BUILDINGS AT NCO2.....	23
FIGURE 8: STONE TOOLS AT NCO3.....	25
FIGURE 9: FEATURES AT NCO04: HOUSE FOUNDATION, GRAVES & CATTLE BYRE	28
FIGURE 10: LOCATION OF NC04, THE PHOTOVOLTAIC FARM AND PROPOSED ALTERNATIVE AREA	29
FIGURE 11: FARM BUILDING AT NCO6.....	30
FIGURE 12: HOUSE FOUNDATIONS AT NCO9.....	31
FIGURE 13: HOUSE FOUNDATIONS AND CATTLE BYRE AT NCO10	33
FIGURE 14: HOUSE FOUNDATIONS, CATTLE BYRE & GRAVE AT NCO11a....	34
FIGURE 15: HOUSE FOUNDATIONS AND CATTLE BYRE AT NCO11b.....	35
FIGURE 16: HOUSE FOUNDATIONS AT SITE 1.....	36
FIGURE 17: HOUSE & BYRE FOUNDATIONS AT SITE 2.....	37
FIGURE 18: HOUSE & BYRE FOUNDATIONS AT SITE 4.....	38
FIGURE 19: AERIAL VIEW OF SITE 08 IN RELATION TO THE CABLE LINE	40
FIGURE 20: LOCATION OF SITES NOT SURVEYED (IN RED).....	41
FIGURE 21: LOCATIONS OF SITES 33 - 39	43
FIGURE 22: LOCATION OF SETTLEMENTS.....	44
FIGURE 23: GRAVE AND STONE WALL AT NCO016.....	45
FIGURE 24: GRAVE AND STONE WALLING AT SITE 043b/c.....	46
FIGURE 25 BYRE AND GRAVES AT SITE 043i/j/k.....	47
TABLE 2: SUMMARY OF SITES	51

INTRODUCTION

Umlando cc was contracted by Coastal Environmental Services to undertake a Heritage Impact Assessment of the proposed Ncora Wind Energy Project and one photovoltaic farms. The study area is located ~70km northeast of Cathcart, and ~70km northwest of Butterworth. The study area occurs over two areas on the top of hills, while the cable lines follow existing tracks and roads.

The more mountainous areas have been used for pasturage, while the lower and more flat areas, have been extensively ploughed.

There are two options for the wind turbines, depending on the output voltage required. These are WWD3, V80 and require different types of wind turbines. There is also an option for one area to be developed for photovoltaic electricity.

The study area will have up to ten wind turbines and two photovoltaic areas. The impacts on the area will be:

- Concrete foundations to support the wind towers,
- Approximately 3.5 meter wide internal access roads to each turbine
- Underground cables connecting each turbine to the other and to the substation,
- A small building to house the control instrumentation and interconnection elements, as well as a storeroom for maintenance equipment.

The desktop study noted 58 heritage sites while the survey recorded an additional 13 sites. These sites date to the Stone Age and the (recent) historical period. These sites vary in significance. Parts of the Photovoltaic area will need to be moved further south, and some of the cable lines will need to be rerouted. The turbines appear to suitably position. Community meetings would note any living heritage sites and recent graves.

FIGURE 1 GENERAL LOCATION OF THE NNCORA WIND TURBINE FARM

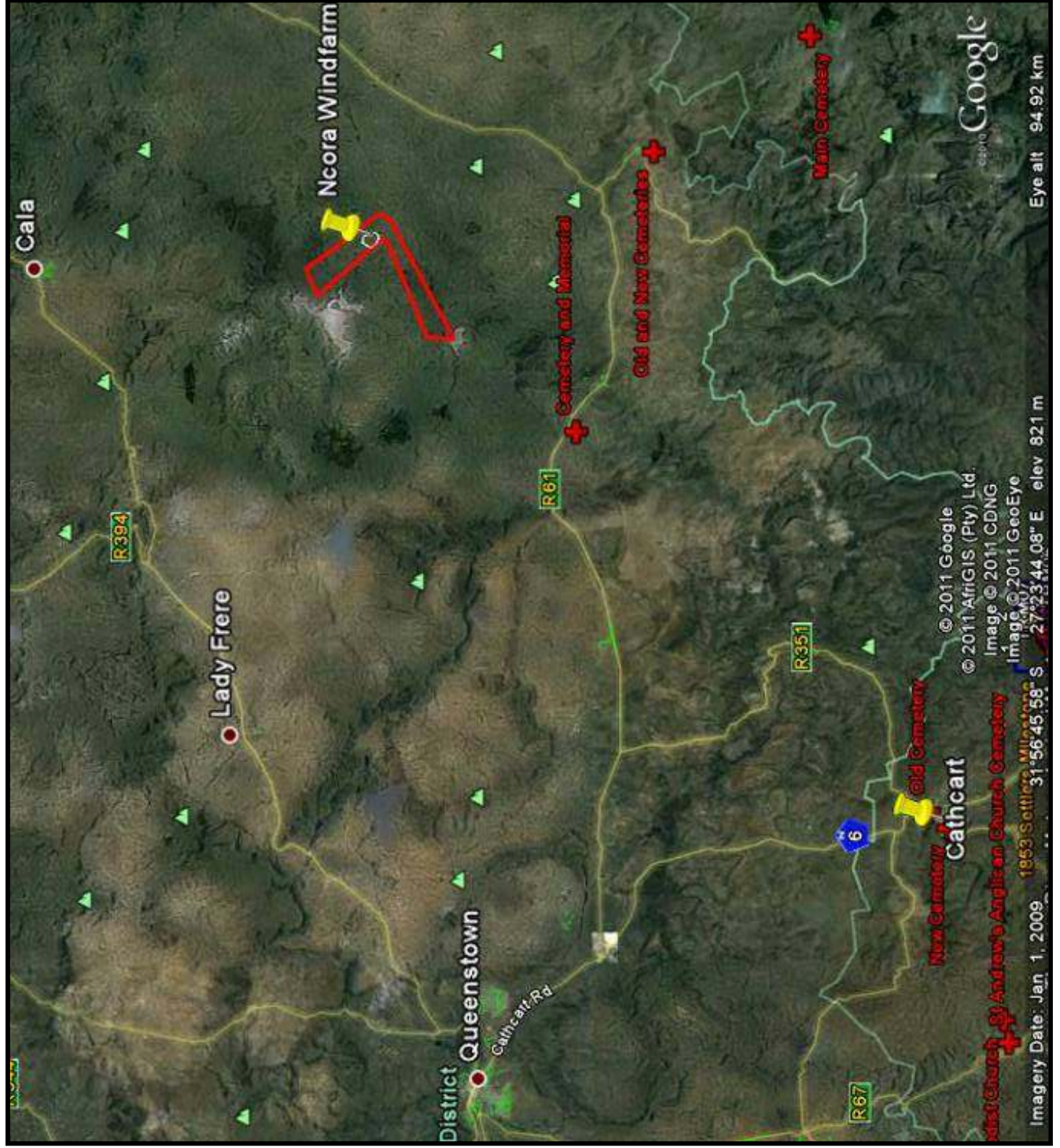
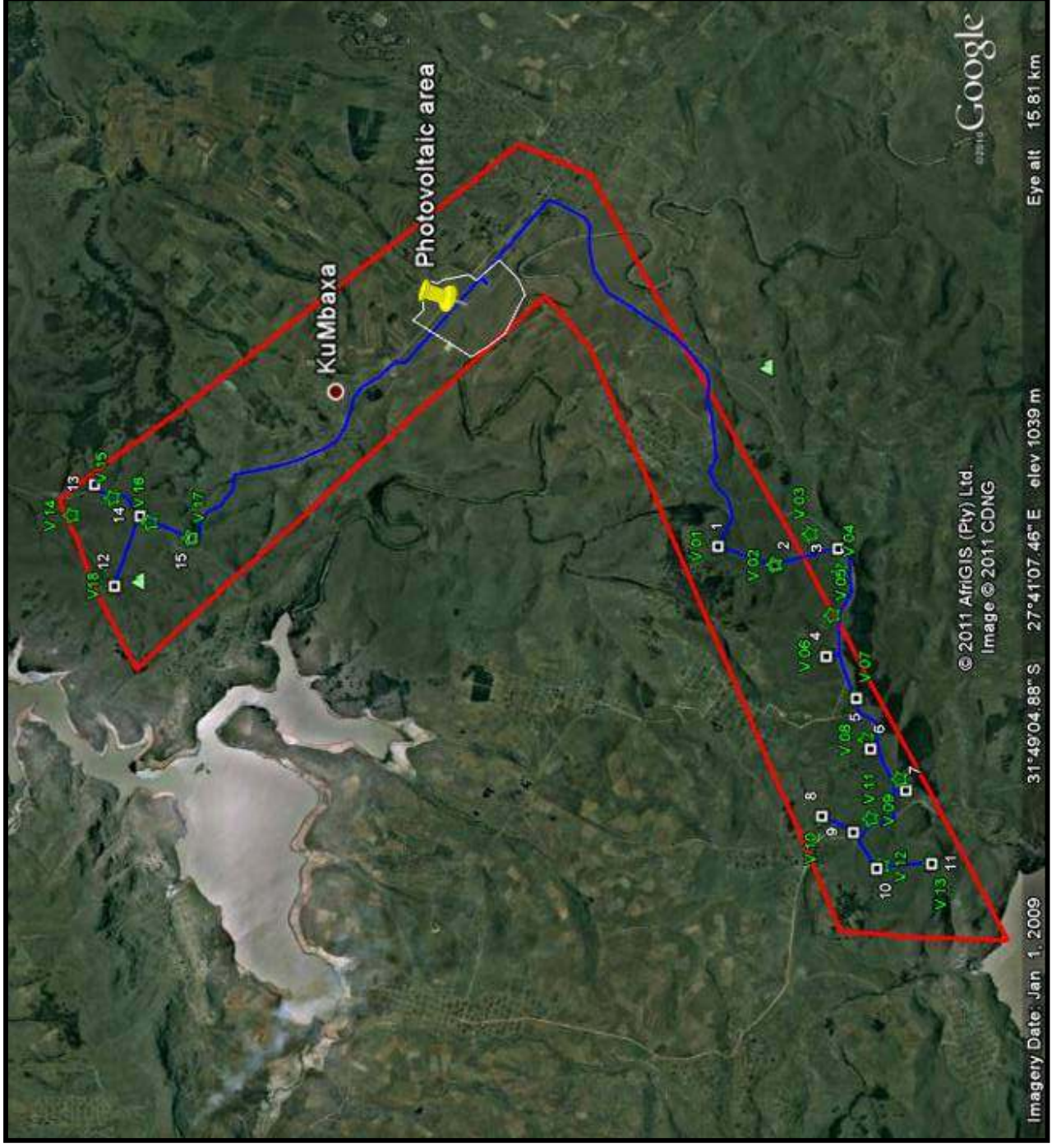
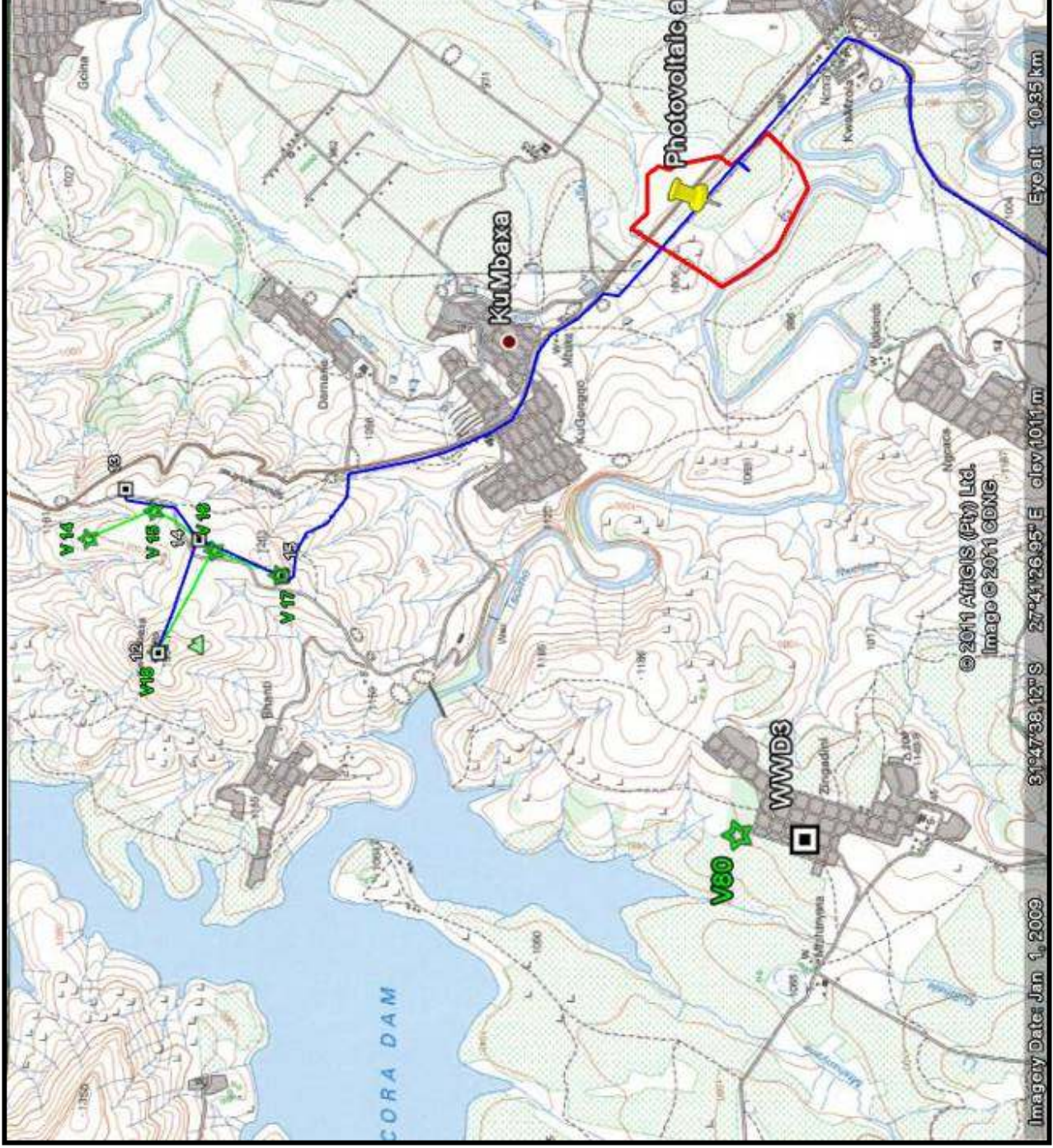


FIGURE 2: AERIAL OVERVIEW OF THE STUDY AREA WITH TURBINE AND PHOTOVOLTAIC LOCATIONS¹



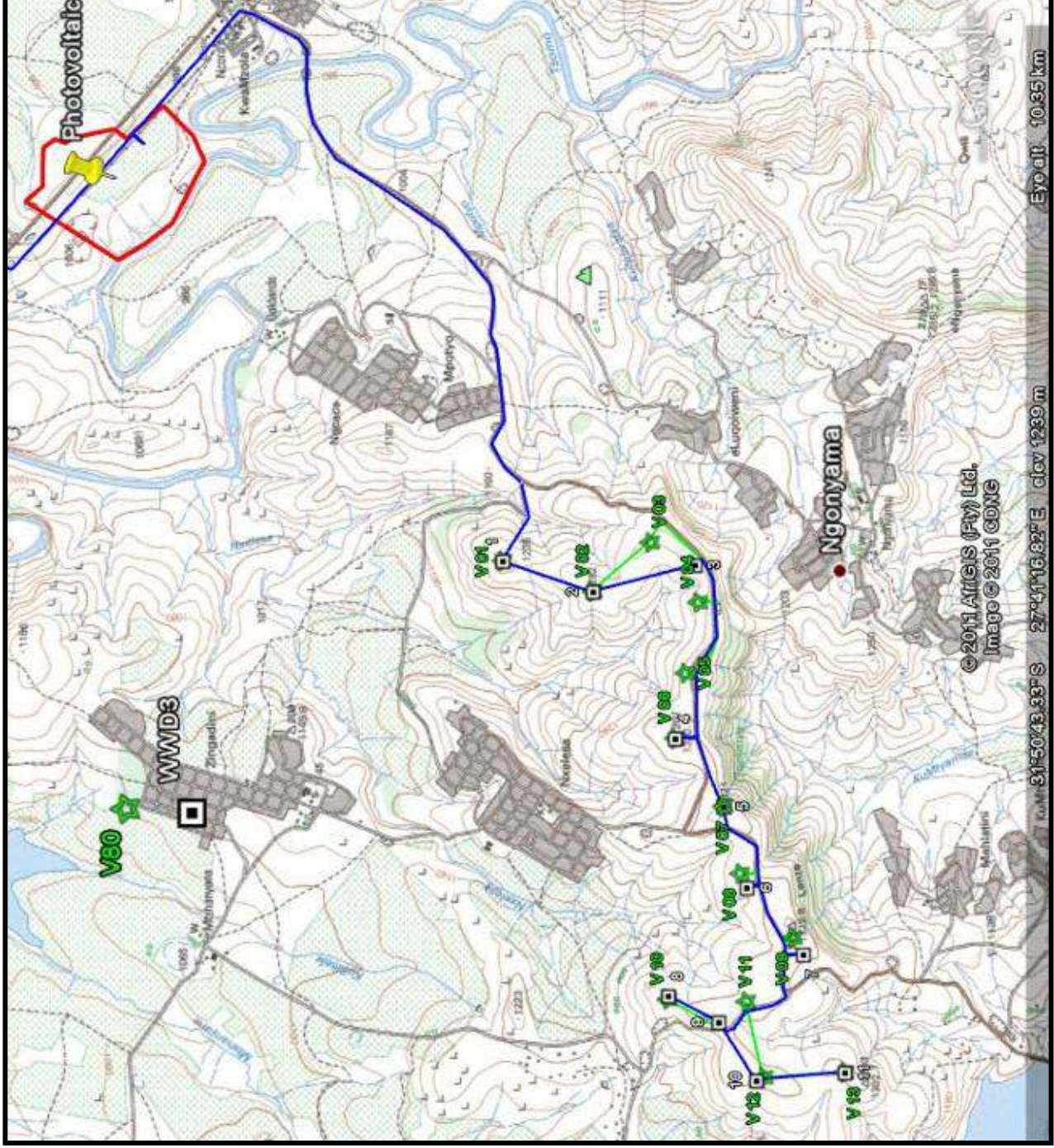
¹ Blue line = cable line

FIGURE 3a: 1995 TOPOGRAPHICAL MAP OF THE NORTHERN STUDY AREA²



² 3127DC Ncora Dam 1995. Blue/Green line = cable line

FIGURE 3b: 1995 TOPOGRAPHICAL MAP OF THE SOUTHERN STUDY AREA³



³ 3127DC Neora Dam 1995. Blue/Green line = cable line

NATIONAL HERITAGE RESOURCES ACT OF 1999

The National Heritage Resources Act of 1999 (pp 12-14) protects a variety of heritage resources. These resources are defined as follows:

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.
2. Without limiting the generality of subsection (1), the national estate may include—
 - 2.1. Places, buildings, structures and equipment of cultural significance;
 - 2.2. Places to which oral traditions are attached or which are associated with living heritage;
 - 2.3. Historical settlements and townscapes;
 - 2.4. Landscapes and natural features of cultural significance;
 - 2.5. Geological sites of scientific or cultural importance;
 - 2.6. Archaeological and palaeontological sites;
 - 2.7. Graves and burial grounds, including—
 - 2.8. Ancestral graves;
 - 2.9. Royal graves and graves of traditional leaders;
 - 2.10. Graves of victims of conflict;
 - 2.11. Graves of individuals designated by the Minister by notice in the Gazette;
 - 2.12. Historical graves and cemeteries; and
 - 2.13. Other human remains which are not covered in terms of the Human Tissue Act, 1983 (Act No. 65 of 1983);
3. Sites of significance relating to the history of slavery in South Africa;
 - 3.1. Movable objects, including—

4. Objects recovered from the soil or waters of South Africa, including archaeological and palaeontological objects and material, meteorites and rare geological specimens;
 - 4.1. Objects to which oral traditions are attached or which are associated with living heritage;
 - 4.2. Ethnographic art and objects;
 - 4.3. Military objects;
 - 4.4. objects of decorative or fine art;
 - 4.5. Objects of scientific or technological interest; and
 - 4.6. 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, 1996 (Act No. 43 of 1996).
5. 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—
 - 5.1. Its importance in the community, or pattern of South Africa's history;
 - 5.2. Its possession of uncommon, rare or endangered aspects of South Africa's natural or cultural heritage;
 - 5.3. Its potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage;
 - 5.4. Its importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects;
 - 5.5. Its importance in exhibiting particular aesthetic characteristics valued by a community or cultural group;
 - 5.6. Its importance in demonstrating a high degree of creative or technical achievement at a particular period;
 - 5.7. Its strong or special association with a particular community or cultural group for social, cultural or spiritual reasons;
 - 5.8. 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

5.9. sites of significance relating to the history of slavery in South Africa”

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.

RESULTS

The area continues with the settlement pattern I have noted elsewhere in the Eastern Cape (Anderson 2009a, 2009b, 2009c, 2010a, 2010b, 2011a, and 2011b). That is, there is little evidence of Late Iron Age (LIA) sites, even though they should exist – Early Iron Age sites do exist but in the larger river valleys (see Feeley 1986; Derricourt 1977). This may be partly because of the increase in mechanised ploughing activities that occurred in E. Cape and KwaZulu-Natal from the 1930's onwards. Most of the recorded sites date from the late 18th century onwards. There is also some evidence from our various surveys that there tends to be a continual occupation of the same plot of land over a length of time. Van Ryneveldt (2010, 2011) has noted similar trends I have observed. Historical Period stone walled kraals still in use to this day. In this way, the houses are continually reused and fixed, and new ones built gradually as the families expand. A last suggestion for the lack of LIA settlements is that only a few areas used dry stone walling, while the rest use mud bricks for houses and kraal foundations, and plants such as aloes for kraals. These would erode through time without leaving surface evidence. Human graves may also consist of holes in the ground that are covered with soil and then tree branches on the top. These types of features would not last long past 50 years. This method of burial, coupled with agricultural ploughing, would thus destroy LIA settlements.

Lewis and Mrara (2010:375) state:

“During the 19th century the predominant form of rural settlement in Transkei was that of dispersed homesteads. The form of the homesteads tended to differ from tribe to tribe, while the homesteads of various tribal groups were separated from each other by uninhabited areas, or buffer zones. During the 19th century mission settlements were introduced to Transkei, some of which developed into towns.

In the 20th century, mainly as a result of government action, homesteads have been nucleated into rural settlements and villages and much of the land has been fenced. A few peri-urban and industrial villages also exist in Transkei. Over 95% of the population of Transkei in 1980 were still rural dwellers.”

This would explain the clusters of settlements on various hills that are shown on the older topographical maps. Whether these clusters, or ‘nucleated homesteads’, were originally cantered along kinship lines would need further research, but that is not the case for more recent villages.

The term settlement refers to a single-family household. These all follow a similar pattern in terms of layout:

- Row of 3 houses/huts – some have a double row of houses
- A small cattle byre
- A large agricultural field
- Graves tend to be located near the byre

The position of the cattle byre varies. Some settlements have the byre in the agricultural field, but near the house, while others have at furthest away from the house. Graves tend to be associated with the cattle byre and are outside of the byre. The entrance to the byre also varies and this may be a spatial or temporal feature.

Desktop Study

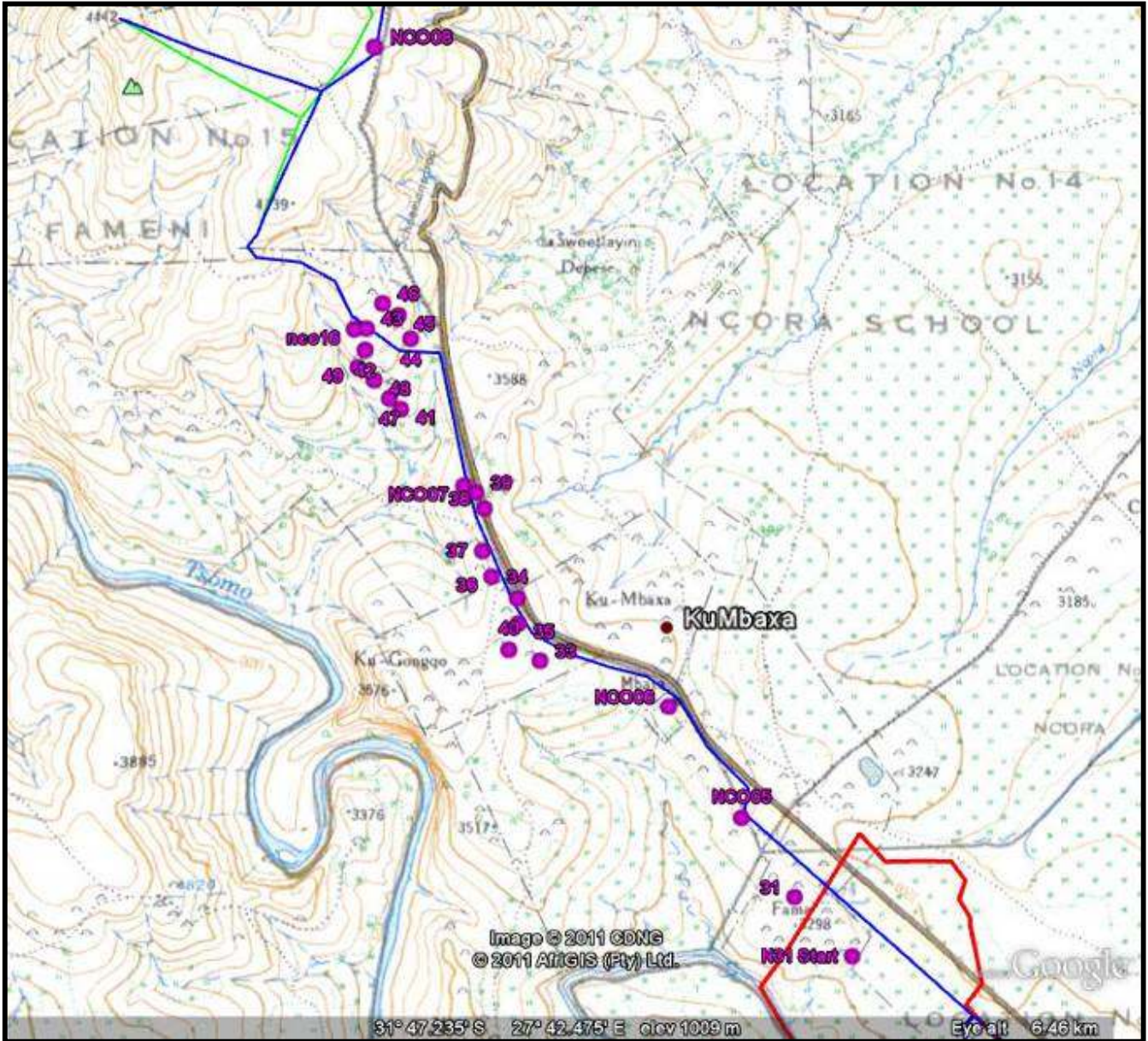
The 1964 1:50 000 topographical map (fig. 4a-c) indicates that 50 areas were considered as being sensitive, or have houses. These have been given a number in the report. All new sites that were recorded during the survey are given the prefix NCO. The desktop looked at each hill and its slopes for potential sites. Many of these were omitted from the survey, as they were not going to be affected by the turbines or the cable lines. These sites are noted for the development footprint, but will not be referred to in the report. Nineteen of the sensitive areas were surveyed and are not sites, and these have been omitted from the maps (hence the discontinuous numbering system).

Some of the settlements can be traced to a village name; however, most appear to predate 1964.

Table 1 summarises the desktop results and their relation to the survey.

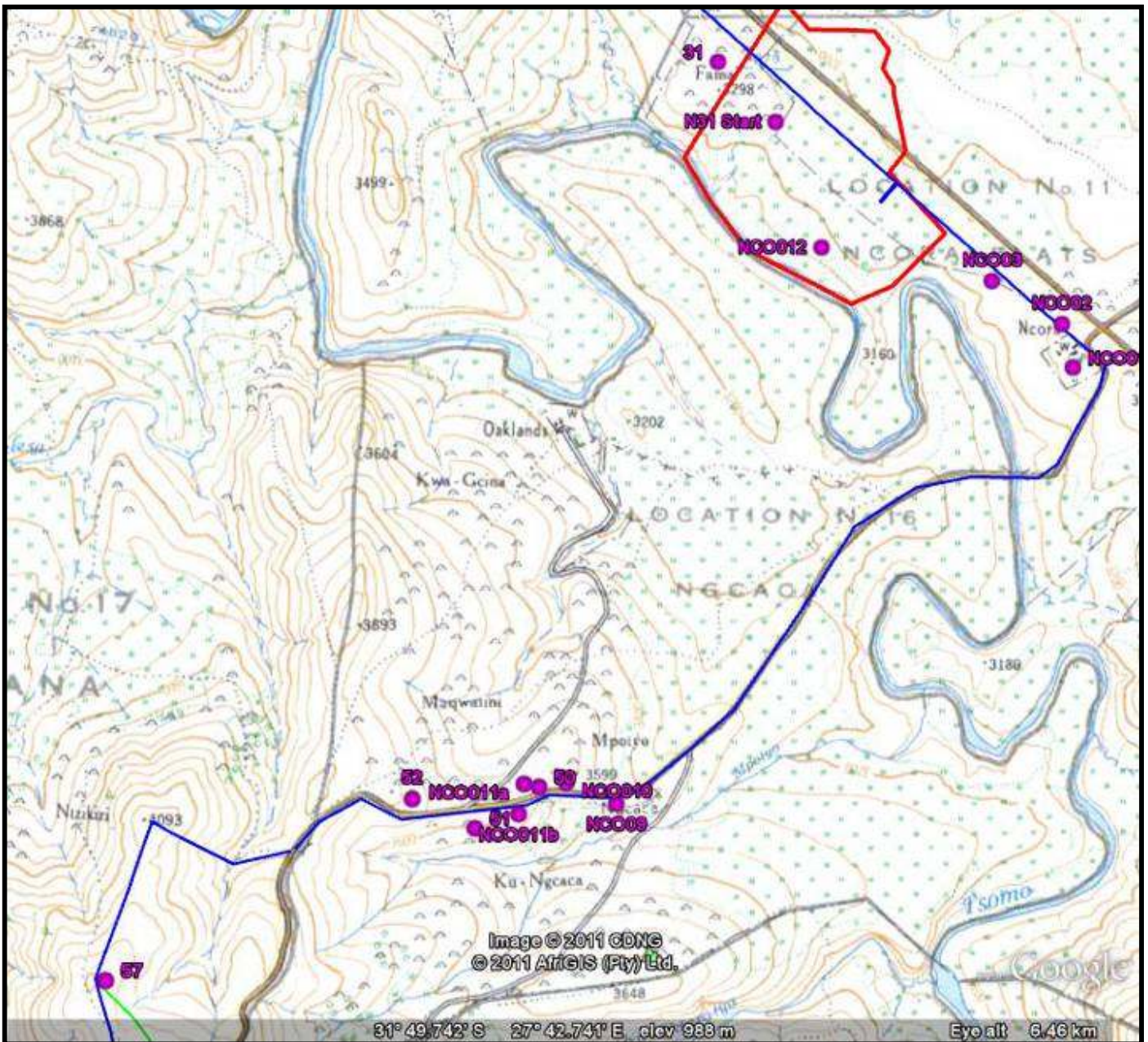
Figure 5 shows the three main areas: the southern hill, the area for the photovoltaic farm, and the northern hill.

FIGURE 4a: LOCATION OF HERITAGE SITES (NORTHERN SECTION) IN 1964⁴



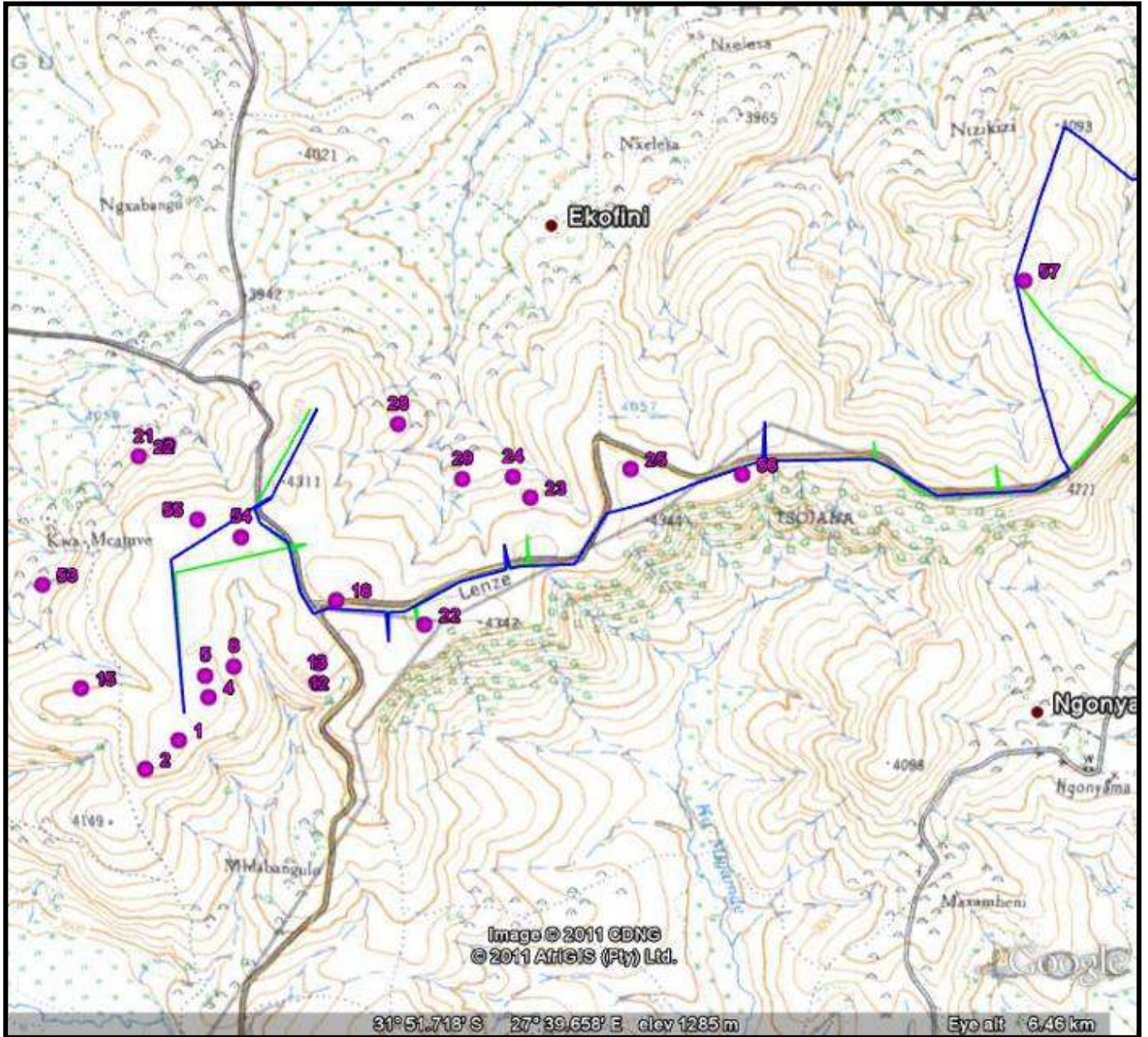
⁴ 3128DC Eliotdale (1982)

FIGURE 4b: LOCATION OF HERITAGE SITES (CENTRAL SECTION) IN 1964⁵



⁵ 3128DC Eliotdale (1982)

FIGURE 4c: LOCATION OF HERITAGE SITES (SOUTHERN SECTION) IN 1964⁶



⁶ 3128DC Eliotdale (1982)

TABLE 1: SUMMARY OF SITES OBSERVED IN THE DESKTOP SURVEY

Name	On 1964 map	On aerial survey	Surveyed	Not surveyed	No longer exists	Co-ordinates
1		X	X			31° 52.338'S 27° 38.335'E
2		X	X			31° 52.420'S 27° 38.225'E
4		X	X			31° 52.216'S 27° 38.435'E
5		X	X			31° 52.156'S 27° 38.423'E
8		X		X		31° 52.132'S 27° 38.513'E
12		X		X		31° 52.121'S 27° 38.802'E
13		X		X		31° 52.177'S 27° 38.795'E
15		X	X			31° 52.193'S 27° 38.002'E
21		X		X		31° 51.497'S 27° 38.281'E
28		X		X		31° 51.438'S 27° 39.061'E
29		X		X		31° 51.596'S 27° 39.278'E
33		X	X		X	31° 47.639'S 27° 42.349'E
34		X	X		X	31° 47.456'S 27° 42.269'E
35		X	X		X	31° 47.529'S 27° 42.274'E
36		X	X		X	31° 47.392'S 27° 42.180'E
37		X	X		X	31° 47.316'S 27° 42.148'E
38	X	X		X		31° 47.190'S 27° 42.155'E
39		X	X		X	31° 47.142'S 27° 42.126'E
40		X	X		X	31° 47.606'S 27° 42.241'E
41	X	X		X		31° 46.898'S 27° 41.866'E
42	X	X	X			31° 46.728'S 27° 41.749'E
43	X	X	X			31° 46.666'S 27° 41.754'E
44	X	X		X		31° 46.692'S 27° 41.902'E
45	X	X		X		31° 46.625'S 27° 41.862'E
46	X	X		X		31° 46.592'S 27° 41.809'E
47	X	X		X		31° 46.867'S 27° 41.828'E
48	X			X		31° 46.814'S 27° 41.777'E
49	X	X	X			31° 46.777'S 27° 41.722'E
50		X	X			31° 50.509'S 27° 42.614'E
51	X	X	X			31° 50.629'S 27° 42.393'E
52		X	X		X	31° 50.540'S 27° 42.178'E
53		X		X		31° 51.900'S 27° 37.849'E
NCO01		X	X			31° 49.266'S 27° 44.492'E
NCO02		X	X			31° 49.135'S 27° 44.455'E
NCO03			X			31° 49.005'S 27° 44.211'E
NCO04		X	X			31° 48.530'S 27° 43.445'E
NCO05			X			31° 48.114'S 27° 43.054'E
NCO06	X	X	X			31° 47.779'S 27° 42.798'E
NCO07	X	X	X			31° 47.124'S 27° 42.083'E
NCO08		X	X			31° 45.870'S 27° 41.795'E
NCO09	X	X	X			31° 50.565'S 27° 42.883'E
NCO10	X	X	X			31° 50.498'S 27° 42.709'E
NCO11a	X	X	X			31° 50.500'S 27° 42.562'E
NCO11b	X	X	X			31° 50.588'S 27° 42.544'E
NCO012	X		X			31° 48.903'S 27° 43.611'E

FIGURE 5: LOCALITY VIEW OF SOUTHERN HILL, PHOTOVOLTAIC AREA AND NORTHERN HILL



NCO01

NCO01 appears to be the original farmhouse named Ncora (fig. 6). The buildings predate 1964 (fig. 4b), and are probably late 19th or early 20th century. The buildings appear to be a farmhouse and associated buildings, and a trading store. The buildings are mostly in ruin, although the main farmhouse appears to be inhabited. There are probably several middens related to the house in the general yard. I drove along the cable route that would be beside the road, and did not note any historical middens.

The cable line passes near the site, alongside the road, and does not appear to have a direct impact on the site.

Significance: The site would need to be assessed by a historical architect if it is to be affected.

Mitigation: No mitigation is currently required; however, if the cable enters the premises, then the area would need monitoring for historical middens and artefacts.

FIGURE 6: FARM BUILDINGS AT NC01



NCO02

NCO2 is an area of abandoned houses. The houses date between 1964 and 1995, as seen on the associated topographical maps. These buildings may be associated with NCO01. I did not observe any graves in this area.

Significance: The buildings are of low significance

Mitigation: No mitigation is required.

FIGURE 7: ABANDONED BUILDINGS AT NCO2



NCO03 and NCO12

NCO03 (and NCO12) is a scatter of Late Stone Age (LSA) and Middle Stone Age (MSA) tools that were visible in eroded and ploughed areas. NCO03 is the southern side of the extensive scatter, while NCO12 occurs more to the north and west. They were originally given different site names, but have now been subsumed into a larger site of a scatter of artefacts.

The artefacts are made from local raw materials (quartzite and dolerite) and include the following (fig. 8):

- Standard MSA flake
- MSA flake re-used in the LSA
- LSA irregular core
- LSA Adze
- LSA end-scraper
- LSA utilised flake

There is no archaeological deposit at the site and it appears that the artefacts are mixed and in a secondary context. The artefacts probably occur along the rest of this area, e.g. to NCO012.

The cable line may go through the site, as it will run parallel to the current dirt road.

Significance: The site is of low-medium significance. The impact of the cable line will be minimal; however, the impact of the photovoltaic farm will be high.

Mitigation: No further mitigation is required for the cable line. If the photovoltaic farm is located in this area, then the site should be systematically sampled over several areas. This would entail setting up several squares and undertaking an analysis of the artefacts in each square. The artefacts should be sampled and donated to the nearest museum that is capable of curating them.

FIGURE 8: STONE TOOLS AT NCO3⁷



NCO04

NCO04 is also referred as Site 31 on the maps. The site is situated on the top of a hill overlooking the Tsomo River. NCO04 consists of a series of settlements over an area 920m x 420m in size. The 1964 map indicates it was called Fama and consists of ~35 houses. Most of the house and cattle byre remains are still visible, as are several graves, but vary in the degree of preservation (fig. 9). The houses tend to be in single rows of 3 – 4 houses per settlement. The foundations of the houses are circular or square. The cattle byres vary in size and style. Most of the byres are rectangular with low stone walling. The byres can consist of one or two compartments and the entrances have various orientations. Some of the byres are circular and they tend to be larger than the rectangular ones. The circular features may date to the turn of the century.

The site has been negatively affected by three incidents:

- Ploughing of the lower slopes of the site
- The construction of a water reservoir and the access roads and water pumps, that have gone through some of the settlements

⁷ Scale in 10cm blocks

- The construction of an Eskom powerline that has directly affected some of the sites (fig. 9)

The site is generally well preserved and should not be affected.

The cable line occurs adjacent to the one older track. The cable line will not affect these sites, if it is not more than 10m from either side of the track. The graves appear to be more than 50m from the proposed cable line.

The proposed photovoltaic farm would affect the site. While the houses and cattle byres can be mitigated, I do not believe that a photovoltaic farm can justify the removal of human remains. This is even more the case, when the area to the south and east can be used. I surveyed the area to the south

Significance: The site is of high significance due to the several graves in the area.

Mitigation: The site should not be affected, but preserved for future research. Any deviation to the current cable line in this general area, i.e. the site and 500m each side of the site will need to be reassessed. This can be undertaken at a desktop level.

NCO05

NCO05 is located near the top of a hill. A servitude track, a canal, and a quarry have exposed the site. The site consists of an ephemeral scatter of MSA tools that appear to be in a secondary context. One of the MSA tools has been re-used in the LSA. The tools are in a secondary context and not as extensive as NCO3 and NCO12.

The cable line is located adjacent to the servitude track and will marginally affect the site.

Significance: The site is of low significance.

Mitigation: No further mitigation is required.

NCO06

NCO06 consists of farm buildings, a trading store, and possible labourer's houses. The area is referred to as Mbaxa on the 1964 topographical map. The buildings are well preserved, while the assumed labourer's houses are in poorly preserved. The site will not be affected if the cable line remains within 20m of the road.

Significance: The site will need to be assessed by an architect historian if affected.

Mitigation: No further mitigation is required.

NCO07

NCO07 is a group of two settlements that occur on the 1964 map. The northern settlement consists of a row of three houses, with a fourth house just behind this row. There are two attached square mudbrick walls in front of the house. The southern settlement is less well preserved and only has the foundations of a mudbrick wall for a cattle byre. I did not observe any burials, but these may be subsurface.

The cable line occurs ~15m from the site. The cable line should not extend beyond 10m from the road, if it is to be placed along the southern side of the road. I suggest the line is placed on the northern side.

Significance: The site is of low significance, unless human remains occur.

Mitigation: The cable line should not affect the site. If the cable line extends for more than 15m from the road, then the area will need to be monitored for possible human remains, especially near the cattle byres.

FIGURE 9: FEATURES AT NCO04: HOUSE FOUNDATION, GRAVES & CATTLE BYRE



FIGURE 10: LOCATION OF NC04, THE PHOTOVOLTAIC FARM AND PROPOSED ALTERNATIVE AREA⁸



⁸ White outline = NC04, red outline = photovoltaic farm, blue line = cable line; white arrows = alternative areas for the photovoltaic farm

FIGURE 11: FARM BUILDING AT NCO6



NCO08

NCO08 occurs on the top of the hill and in the road cutting. The site consists of two MSA flakes and both had a faceted platform. The tools were made from dolerite. More stone tools would occur in the area, and thus I recorded the two artefacts as a site. The tools are in a secondary context and there is no archaeological deposit.

The cable line is located near these two artefacts.

Significance: The site is of low significance

Mitigation: No mitigation is required.

NCO09

NCO09 consists of eight settlements and one school. Only the northern settlement and the school occur on the 1964 map, and I presume the others predate this as they are less well preserved. The school does not exist anymore. The area is referred to as Ngcaca on the 1964 topographical map. All of the settlements have circular cattle byres, with the exception of the northernmost that

has a rectangular byre. Several of the house foundations are well preserved (fig. 12). Only the settlement with the rectangular byre has well-preserved house foundations. I did not observe any graves, although they may be subsurface.

The cable line will probably pass near this site, if not through some of the settlements. It may be technically difficult to place the line on the northern side of the road, due to the steep incline. The northern side of the road also has more well-preserved features.

Significance: The site is of low significance unless human remains occur.

Mitigation: If the cable line affects the site then it will require some form of mitigation. This would depend on the extent of the impact. My main concern would be potential subsurface human remains. If the cable line is placed in this side, it will need to be re-assessed, first at a desktop level, then at an on-site level. The site may need to be accurately mapped before, and monitored during, construction.

FIGURE 12: HOUSE FOUNDATIONS AT NCO9



NCO010

NCO010 is referred to as Mpotyo on the 1964 topographical map. The village has ~30 settlements of which NCO10, and NCO11, form a part. NCO010 consists of at least three settlements on the slope of the hill, and a fourth settlement on the less steep slope. Only these four were noted, as the cable line would not extend further. Each settlement has 3 – 4 houses in a row, but only one has a visible stone walled cattle byre (fig. 13). The lower settlement has a square cattle byre that is made from mudbrick foundations. The lower two sites do not occur on the 1964 map and probably predate it, as they are less well preserved. I did not observe any graves at the site.

The cable line may affect parts of the site. The mudbrick byre occurs within 5m of the road. Graves tend to be associated with cattle byres.

Significance: The site is of low significance as it is the standard type of village settlement for the area. The rest of village appears to be well preserved.

Mitigation: The cable line needs to pass through this site or NCO09. NCO10 has fewer features to be affected, and the one area that will probably be affected is not well preserved. The final cable route will need to be re-assessed. If the lower settlement is affected then it will need to be accurately mapped before, and monitored during, construction activity.

NCO011a

NCO011a occurs on the opposite side of the hill to NCO010. The site consists of three house foundations, a rectangular cattle byre, and a grave (fig. 14). The grave dates to the 1970s, and occurs on the 1964 topographical map. There was another settlement ~120m to the west; however, it does not exist anymore. The site is located about 70m north of the cable line.

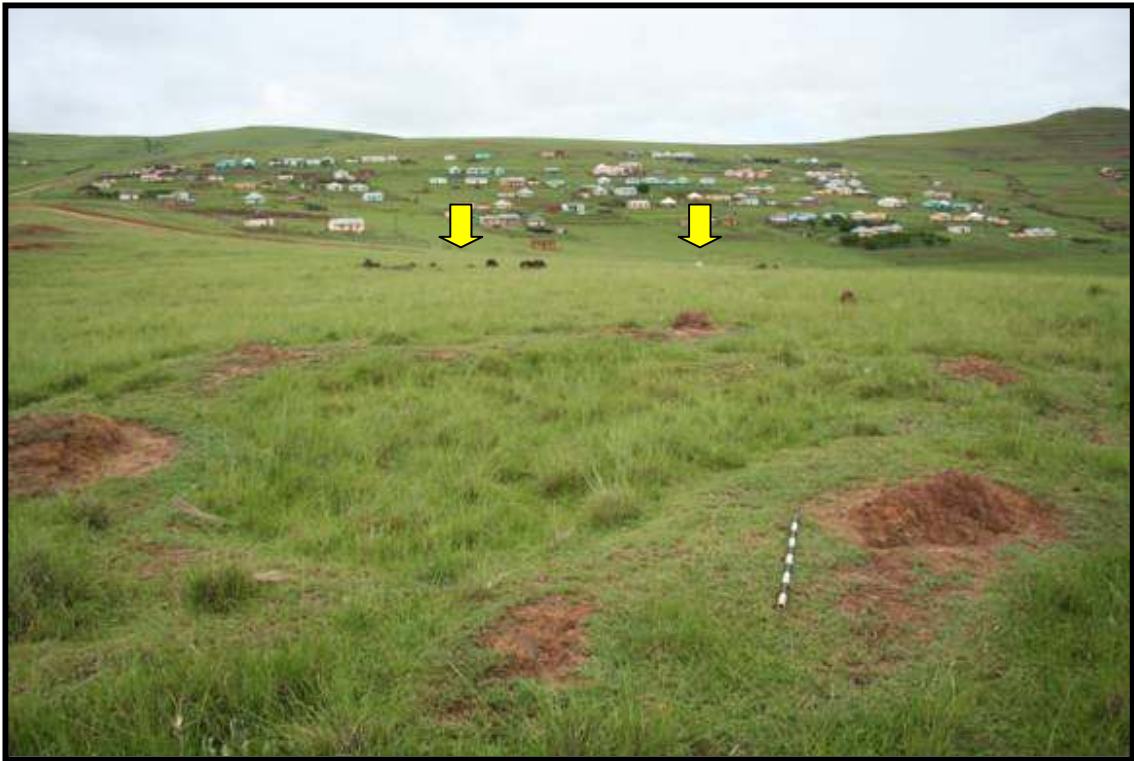
Significance: The site is of low significance, except for the grave that is of high significance.

Mitigation: The cable line will not affect the site and no further mitigation is required.

FIGURE 13: HOUSE FOUNDATIONS AND CATTLE BYRE AT NCO10



FIGURE 14: HOUSE FOUNDATIONS, CATTLE BYRE & GRAVE AT NCO11a⁹



NCO011b

NCO011b is part of the Ngcaca or Mpotyo area on the 1964 topographical map and includes site 051. This map only has five settlements, while the area contains ten settlements: the rest predate 1964. The clusters of sites occur on the flattened area on top of the hill and along the slopes of the hill. Each settlement has a single row of three – four houses, a small cattle byre, and an agricultural field. The byres tend to be near the houses, as opposed to NCO010 where they are further away. The settlements are in various stages of preservation, with those closest to the road the least well preserved. The eastern most settlement (fig. 15) has an extensive mudbrick outer perimeter wall. I did not observe any graves at this site; however, they may be subsurface.

⁹ Arrows indicate byre (left) and grave (right)

The settlements occur from 10m south of the road. Once the cable line has been finalised it can be re-assessed. I suggest that the cable line is placed on the northern side of the road.

Significance: The site is of low significance, unless human graves occur.

Mitigation: If the cable line does occur on this side of the road, then the area will need to be mapped and monitored during construction.

FIGURE 15: HOUSE FOUNDATIONS AND CATTLE BYRE AT NCO11b



SITE 01

Site 1 is located on the top the hill and predates 1964. The site consists of four house floors (fig. 16). I did not observe a cattle byre or graves.

The site is ~135m south of WWD 11 and V80 13

Significance: The site is of low significance

Mitigation: The site will not be affected by the current location of the turbine and cable line. No mitigation is required. If the site is affected it will need to be mapped and monitored.

FIGURE 16: HOUSE FOUNDATIONS AT SITE 1



SITE 02

The site is situated ~200m southwest of Site 1. It consists of three house floors and a stone walled cattle byre (fig. 17). There are only three sides of walling in the byre. I did not observe any graves at the site. The turbines or cable line will not affect the site. The site predates 1964.

Significance: The site is of low significance unless human graves occur.

Mitigation: No mitigation is required since the site will not be affected. If the turbine positions change, the site will need to be mapped and monitored during construction.

FIGURE 17: HOUSE & BYRE FOUNDATIONS AT SITE 2



SITE 04

The site is situated ~150m northeast of Turbine WWD3 11, or V80 13. It consists of three house floors (fig. 18). I did not observe any graves at the site. The site predates 1964. The turbines or cable line will not affect the site

Significance: The site is of low significance unless human graves occur.

Mitigation: No mitigation is required since the site will not be affected. If the turbine positions change, the site will need to be mapped and monitored during construction.

FIGURE 18: HOUSE & BYRE FOUNDATIONS AT SITE 4¹⁰



SITE 05

The site is situated ~80m north of Site 04. Site 05 consists of four house foundations and at foundations of a small byre (fig. 18). The byre is ~5m x 8m.

¹⁰ Yellow arrow indicate the byre at Site 05

The houses appear to form a semi-circle around the byre, as opposed to the normal row of houses at other sites (see Site 08). I did not observe any graves. The site predates 1964.

The site occurs ~95m east of the cable line

Significance: The site is of low-medium significance unless human graves occur.

Mitigation: No mitigation is required since the site will not be affected. If the turbine positions change, the site will need to be mapped and monitored during construction.

SITE 08

Site 08 is located 280m east of the cable line and will not be affected. The site is also lower down on the hill and thus would not be affected by turbines. It is for this reason that the site was not surveyed, but only noted. The site consists of ~10 houses in a semi-circle around a small stone walled byre. The site is unusual in that the houses are not in the normal rows. Graves may occur at the site that also predates 1964. The features appear to be well preserved, as they are very visible in the aerial photographs (fig. 19).

Significance: The site is of medium significance due to its different spatial layout.

Mitigation: The site will not be affected by the development. If any footprints change, then the site will need to be mapped, partially excavated, and monitored.

FIGURE 19: AERIAL VIEW OF SITE 08 IN RELATION TO THE CABLE LINE¹¹



¹¹ Yellow arrow indicates Site 08

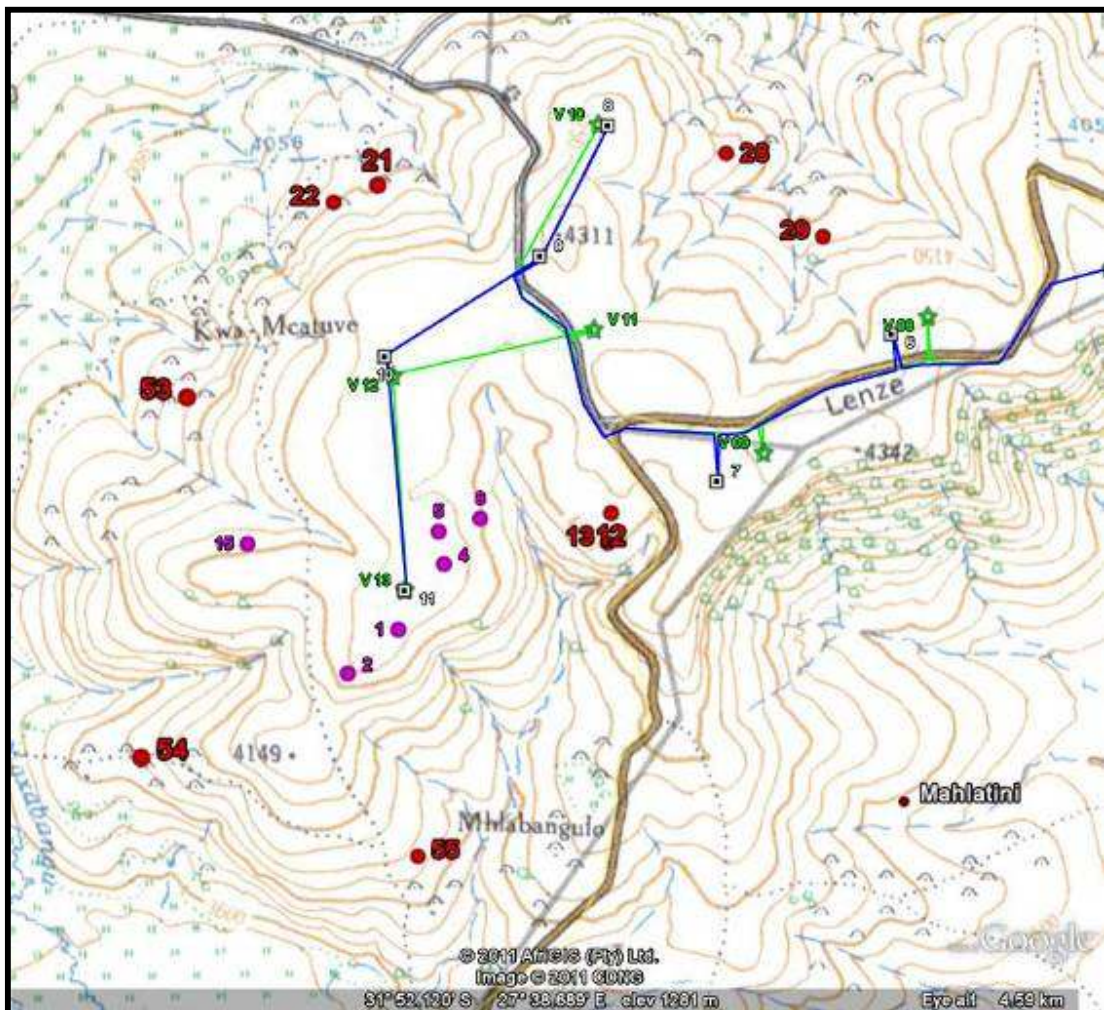
SITES 012, 013, 021, 022, 028, 029, 053, 054 and 055

These seven sites occur below the main hill and will not be affected by the development. They were noted before the survey, in case new access roads or cable lines were made. All of the sites are settlements that occur on the 1964 map (fig. 20) and consist of houses and cattle byres.

Significance: The sites are mostly of low significance, however they may contain graves.

Mitigation: The sites will not be affected by the development. If they were affected, they would need to be mapped, possibly partially excavated, and monitored during construction activity.

FIGURE 20: LOCATION OF SITES NOT SURVEYED (IN RED)



SITE 015

Site 015 is located just below the top of the main hill. It was surveyed, even though it is 500m from the line, in case a turbine is relocated nearby. The site consists of a single stone walled cattle byre, or the outer wall of a house.

Significance: The site is of low significance.

Mitigation: No further mitigation is required.



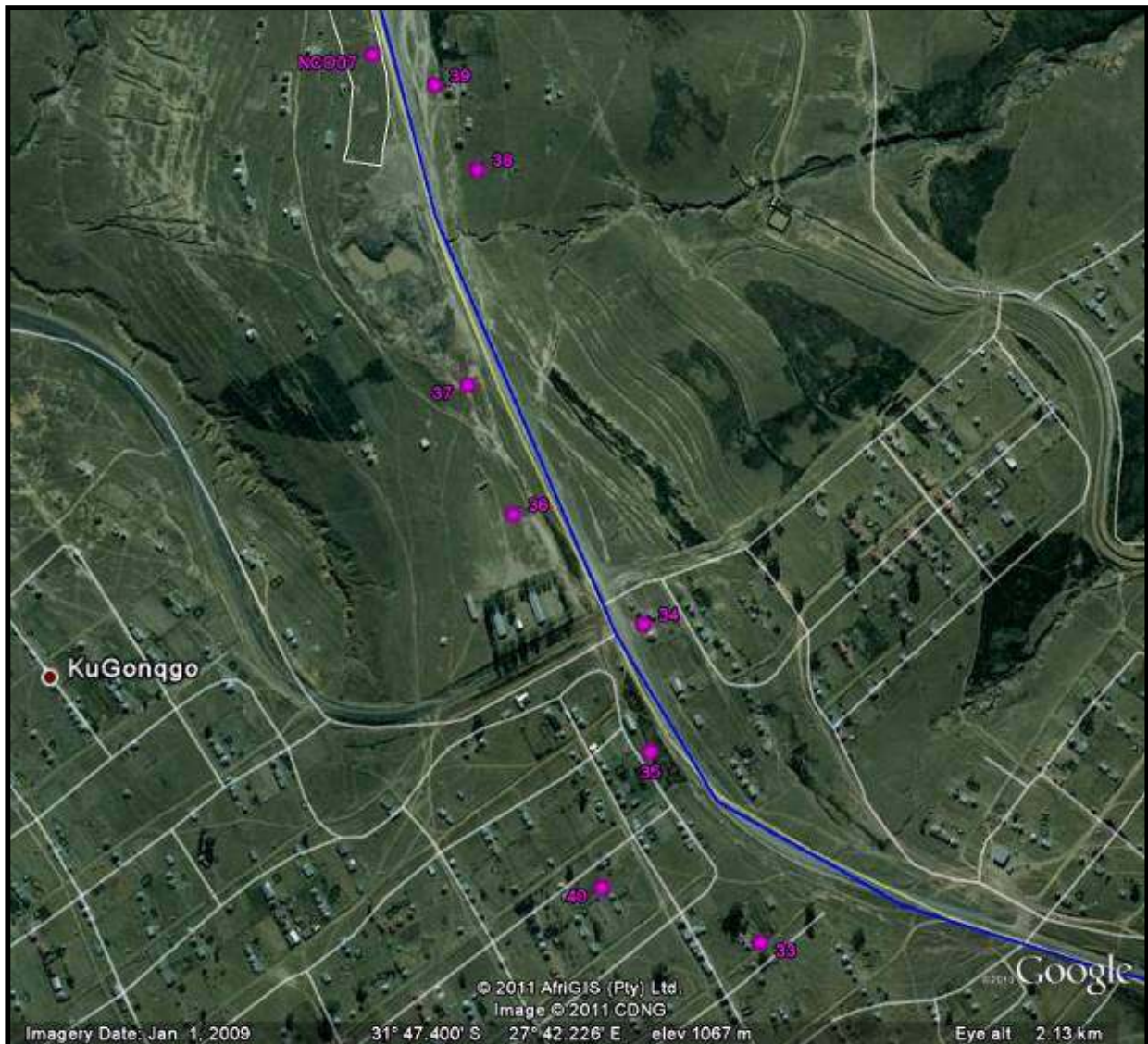
SITES 033 - 040

These eight sites occur on the 1964 topographical map as houses. They do not exist anymore as they have been built over or disturbed through erosion (fig. 21). The only impact would have been the cable line

Significance: The sites are of low significance

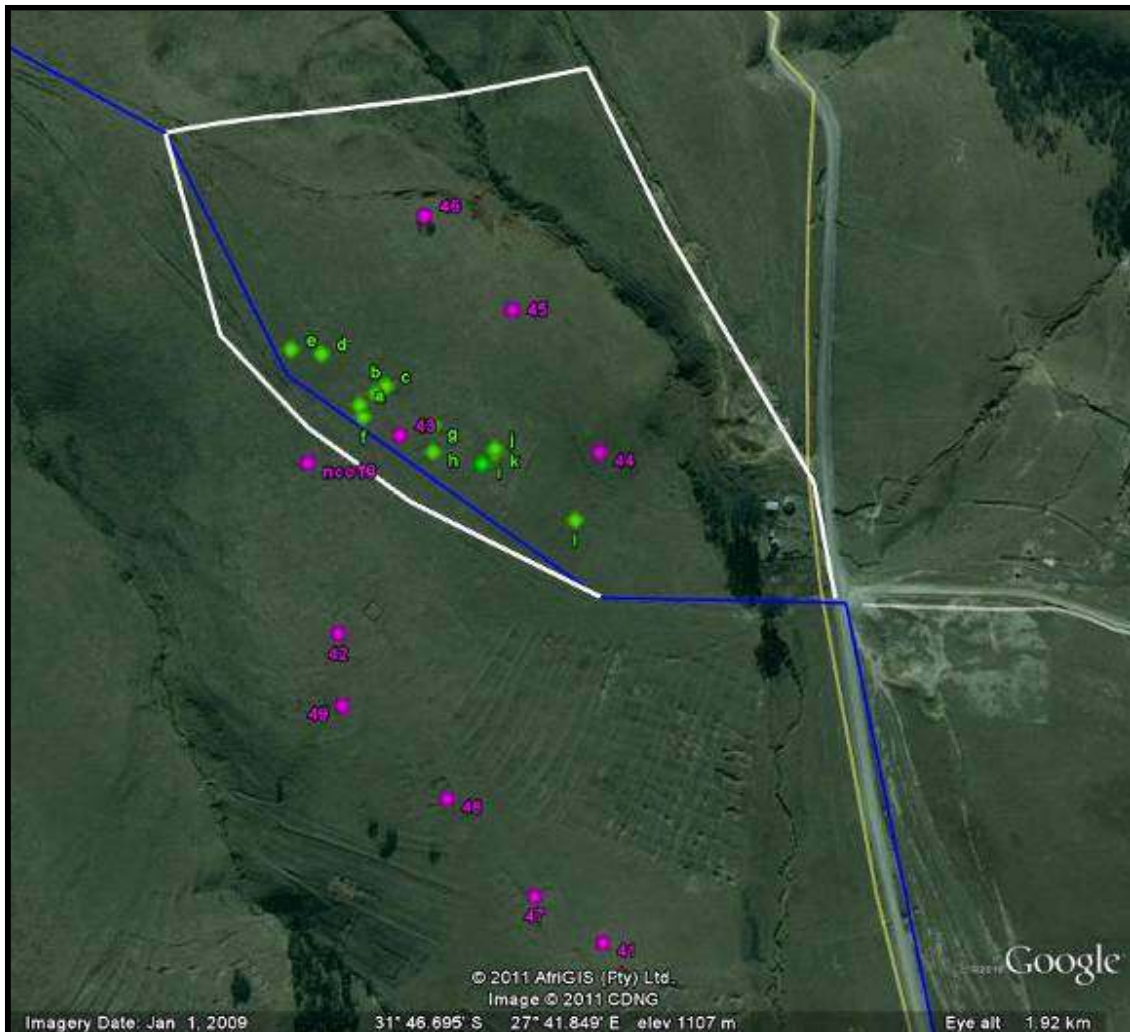
Mitigation: No mitigation is required.

FIGURE 21: LOCATIONS OF SITES 33 - 39



SITES 041 - 049

These sites form a cluster of settlements that formed a village (fig. 22). All sites are noted in case the cable line is rerouted; however only a few were surveyed. Only sites 43, 44 and NCO016 occur within 50m of the proposed cable line, while the rest are 80m or more further away. All of the sites occur on the 1964 topographical map.

FIGURE 22: LOCATION OF SETTLEMENTS¹²

NCO16

NCO16 consists of a stone walled cattle byre and a grave (fig. 23). There are possible house remains to the east. The cattle byre is one of the few walls in this survey that have a double row of stones with rubble infill. Only a part of the byre remains. The grave associated with byre has a concrete headstone that appears to have fallen over. There is no inscription on the headstone.

¹² pink circles = sites from 1964 topographical map, green circles = surveyed sites, blue line = current cable line, white line = preferred reroute

FIGURE 23: GRAVE AND STONE WALL AT NCO016



Significance: The site is of high significance due to the human grave. The grave is related to the byre as the male head of the household were traditionally buried near the cattle byre, and thus the two are symbolically linked.

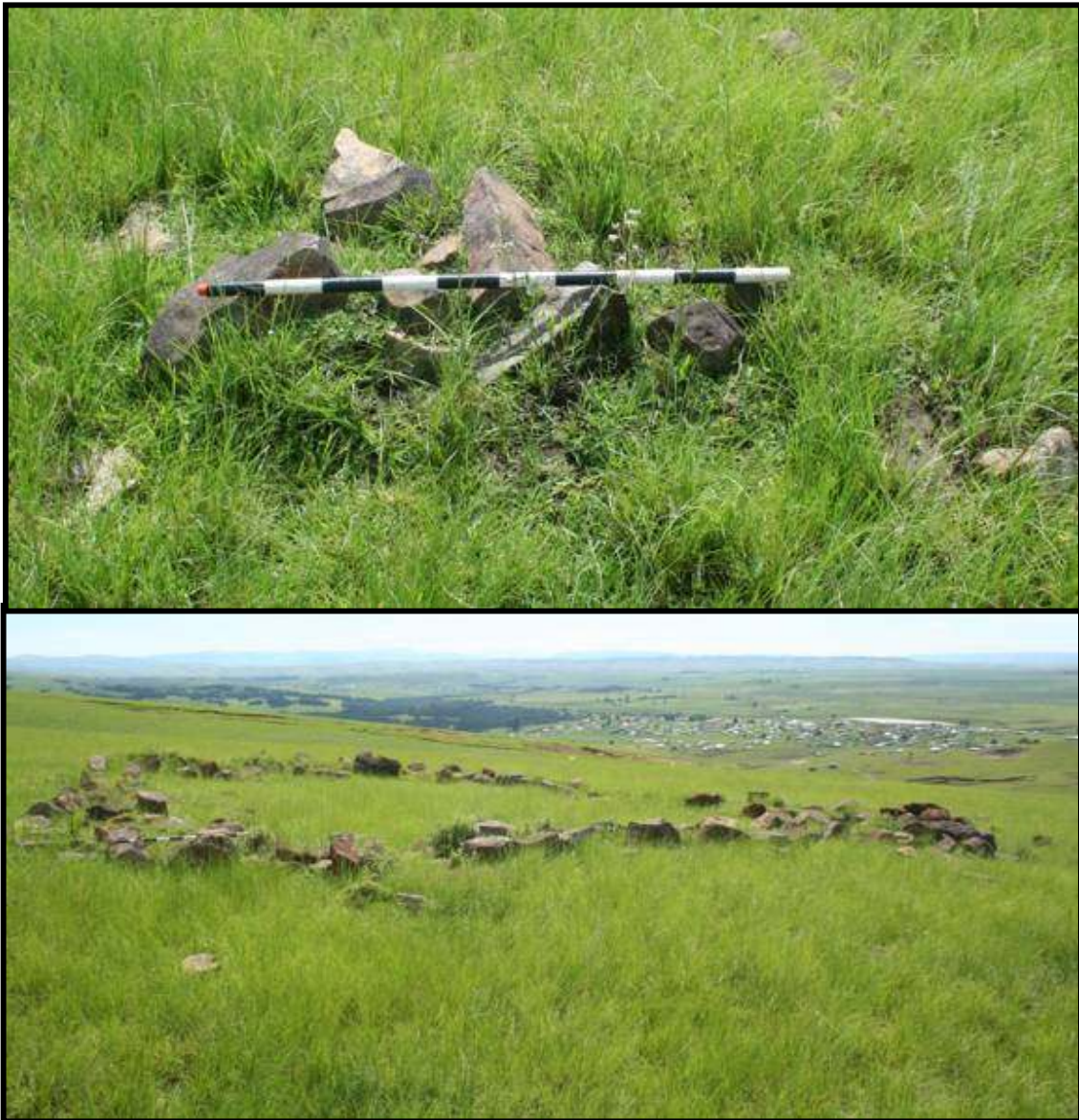
Mitigation: The site may not be damaged or affected. The grave and byre should be clearly demarcated before any construction activity. The mitigation is discussed more below

Site 43

The 1964 topographical map only shows one house in this area; however, the survey observed three settlements. The first (or highest) settlement (points d and e) consists of a cattle byre in the agricultural field and at least one house foundation. Point 'e' may be a grave.

The second settlement (a, b, c, f) consists of at least two houses (a, f), a stone walled cattle byre (c), and a grave (b) (fig. 24).

FIGURE 24: GRAVE AND STONE WALLING AT SITE 043b/c



The next settlement (points g – k) consists of two – three house floors (g-h), a circular cattle byre (i) that has one side dug into the hill, and two graves (j-k) (fig. 25). The graves are unmarked and are associated with the byre. Only the graves are well preserved.

FIGURE 25 BYRE AND GRAVES AT SITE 043i/j/k



Site 44

Site 44 consists of three poorly preserved, house floors and an agricultural field. There may be a mudbrick byre in the field. I did not observe any graves at this site.

Significance: The cluster of settlements is of high significance due to the presence of graves. The structures associated with the graves also have social meaning.

Mitigation: The sites that have graves should not be affected. All of the sites should be fenced off if they occur within 50m of the cable line. I suggest that the current cable line is rerouted, and there are two options (fig. 22):

1. The cable line continues further up the road and cross the river north of Site 046. This would be the safer option as there would be little possibility of damaging sites.
2. The cable crosses the river at the existing crossing. It is then diverted to the west, so that it runs between NCO16 and Sites 043 and 044. If this option is chosen then all the sites will need to be fenced off and clearly demarcated. Alternatively, a corridor is fenced off where the cable line and equipment cannot deviate. I prefer the corridor option. The fencing and/or corridor would need to be supervised by a HIA.

SITE 052

Site 052 is noted as a house on the 1964 topographical map. It has been built over with a new house, and thus does not exist anymore.

Palaeontology

To be summarised from Appendix B

MANAGEMENT PLAN

The turbines and cable lines will directly affect few of the sites, while the photovoltaic area will negatively affect three sites if it is not partially re-located.

Photovoltaic area

The current location of the photovoltaic farm needs to be changed. The area noted as NCO04 should not be affected. While the houses and cattle byres can be mitigated, I do not believe that a photovoltaic farm can justify the removal of human remains. Moreover, the graves (or ancestors) are linked symbolically to the settlement, and thus disturbing one would be disturbing the other. There are areas to the south and east that, where there are no human remains, can be used for the photovoltaic option. If this area was to be affected, the whole area would need to have a social impact assessment for the graves, the features would need to be mapped and partially excavated, and the area monitored during construction. This would be costly.

The photovoltaic area would significantly affect the extensive stone tool scatter. It is not common to find such an extensive scatter in this general area, as they tend to be isolated artefacts. While the artefacts are of low significance, the impact would be medium negative, as the artefacts would be either lost or broken during construction. I suggest that the site should be systematically sampled over several areas. This would entail setting up several squares and undertaking an analysis of the artefacts in each square. The artefacts should be sampled and donated to the nearest museum that is capable of curating them.

Cable line

The cable line has a minimal impact on most of the heritage sites in the study area. Some areas do; however need to be managed. Two historical buildings (NCO01 and NCO06) are near the cable line. Both of these sites have potential historical middens. The cable line should not affect either site if the cable line stays within 10m of the road edge.

The area around NCO07 is sensitive. The cable line should not extend more than 10m from the southern side of the road, but preferably be placed on the northern side. If the cable line extends the 10m boundary on the southern side of the road, then the area would require monitoring during construction activity.

NCO09 – NCO011b is a continual sensitive area with house foundations, cattle byres and potential graves. There are houses, and possible graves, that occur near the road. It will not be feasible to reroute the line with another road, as all of the roads in this general area have heritage sites nearby. The cable line will be restricted in terms of slope of the hills, and geology. The cable line needs to pass through NCO09 or NCO010. NCO010 has fewer features to be affected near the road, and the one area that will probably be affected is not well preserved. NCO09 has several sites that are better preserved that may be affected. If the cable line is placed on the northern side, then it will not affect NCO011b.

The final cable route will need to be re-assessed. The area will need to be monitored during construction activity. If any graves are observed within 50m of the cable line, then they will need to be fenced off. If NCO09 is affected then it will need to be accurately mapped before, and monitored during, construction activity. If NCO010 were affected then it would only require some mapping and site monitoring.

Sites 043 – 049 (and NCO016) have the potential to be negatively affected. The cable line can continue north along the road and veer west (and into the hills) above the cluster of sites. This is my preferred option. Alternatively, the current position of the line will need to be rerouted between sites NCO016, Site 043a-I and Site 044. The sensitive area will need to be clearly demarcated and all graves fenced off. An alternative to this demarcation is to fence off a corridor wide enough for construction equipment to dig the trench. This corridor will only have an access point at the beginning and end. In this way, vehicles cannot deviate from the line and damage sites. I prefer the corridor option. Any fencing will require an HIA on site to supervise the positioning of fencing and poles.

TABLE 2: SUMMARY OF SITES

Name	Type	Significance	Will be affected	Mitigation if affected	Co-ordinates
1	Settlement	Low	No	Map, monitor	31° 52.338'S 27° 38.335'E
2	Settlement	Low	No	Map, Monitor	31° 52.420'S 27° 38.225'E
4	Settlement	Low	No	Map, Monitor	31° 52.216'S 27° 38.435'E
5	Settlement	Low-medium	No	Map, Monitor	31° 52.156'S 27° 38.423'E
8	Settlement	medium	No	Map, Monitor	31° 52.132'S 27° 38.513'E
12	Settlement	Low-medium	No	Survey, Map, Monitor, possible excavate	31° 52.121'S 27° 38.802'E
13	Settlement	Low-medium	No	Survey, Map, Monitor, possible excavate	31° 52.177'S 27° 38.795'E
15	Cattle byre	Low	No	Map, Monitor	31° 52.193'S 27° 38.002'E
21	Settlement	Low-medium	No	Survey, Map, Monitor, possible excavate	31° 51.497'S 27° 38.281'E
22	Settlement	Low-medium	No	Survey, Map, Monitor, possible excavate	
28	Settlement	Low-medium	No	Survey, Map, Monitor, possible excavate	31° 51.438'S 27° 39.061'E
29	Settlement	Low-medium	No	Survey, Map, Monitor, possible excavate	31° 51.596'S 27° 39.278'E
33	Settlement	Low	Possible	None	31° 47.639'S

Name	Type	Significance	Will be affected	Mitigation if affected	Co-ordinates
					27° 42.349'E
34	Settlement	Low	Possible	None	31° 47.456'S 27° 42.269'E
35	Settlement	Low	Possible	None	31° 47.529'S 27° 42.274'E
36	Settlement	Low	Possible	None	31° 47.392'S 27° 42.180'E
37	Settlement	Low	Possible	None	31° 47.316'S 27° 42.148'E
38	Settlement	Low	Possible	None	31° 47.190'S 27° 42.155'E
39	Settlement	Low	Possible	None	31° 47.142'S 27° 42.126'E
40	Settlement	Low	Possible	None	31° 47.606'S 27° 42.241'E
41	settlement	High	No	May not be affected	31° 46.898'S 27° 41.866'E
42	settlement	High	No	May not be affected	31° 46.728'S 27° 41.749'E
43	settlement	High	No	May not be affected	31° 46.666'S 27° 41.754'E
43a	settlement	High	No	May not be affected	31° 46.643'S 27° 41.740'E
43b	Grave	High	No	May not be affected	31° 46.638'S 27° 41.748'E
43c	settlement	High	No	May not be affected	31° 46.635'S 27° 41.753'E
43d	settlement	High	No	May not be affected	31° 46.622'S 27° 41.722'E
43e	settlement	High	No	May not be affected	31° 46.620'S 27° 41.707'E
43f	settlement	High	No	May not be affected	31° 46.648'S 27° 41.742'E
43g	settlement	High	No	May not be affected	31° 46.652'S 27° 41.777'E
43h	settlement	High	No	May not be affected	31° 46.663'S 27° 41.777'E
43i	settlement	High	No	May not be affected	31° 46.668'S 27° 41.802'E
43j	Grave	High	No	May not be affected	31° 46.662'S 27° 41.808'E
43k	Grave	High	No	May not be affected	31° 46.663'S 27° 41.808'E
43l	settlement	High	No	May not be affected	31° 46.693'S 27° 41.850'E
44	settlement	High	No	May not be affected	31° 46.692'S 27° 41.902'E
45	settlement	High	No	May not be affected	31° 46.625'S 27° 41.862'E
46	settlement	High	No	May not be affected	31° 46.592'S 27° 41.809'E
47	settlement	High	No	May not be affected	31° 46.867'S 27° 41.828'E

Name	Type	Significance	Will be affected	Mitigation if affected	Co-ordinates
48	settlement	High	No	May not be affected	31° 46.814'S 27° 41.777'E
49	settlement	High	No	May not be affected	31° 46.777'S 27° 41.722'E
51	Settlement	See NCO011b		See NCO011b	31° 50.629'S 27° 42.393'E
52	Settlement	low	possible	None	31° 50.540'S 27° 42.178'E
53	Settlement	Low-medium	No	Survey, Map, Monitor, possible excavate	31° 51.900'S 27° 37.849'E
54	Settlement	Low-medium	No	Survey, Map, Monitor, possible excavate	31° 52.593'S 27° 37.783'E
55	Settlement	Low-medium	No	Survey, Map, Monitor, possible excavate	31° 52.841'S 27° 38.440'E
NCO01	Farm buildings	N/A	No	Monitor	31° 49.266'S 27° 44.492'E
NCO02	Recent House	Low	No	Monitor	31° 49.135'S 27° 44.455'E
NCO03	Stone tool scatter	Low-medium	Yes	Sample	31° 49.005'S 27° 44.211'E
NCO04	Cluster of settlements	High	Partially	Only cable line may affect	31° 48.530'S 27° 43.445'E
NCO05	Stone tool scatter	Low	Yes	None	31° 48.114'S 27° 43.054'E
NCO06	Farm houses, settlement	N/A	No	Monitor	31° 47.779'S 27° 42.798'E
NCO07	Cluster of settlements	Low	Possible	Monitor	31° 47.124'S 27° 42.083'E
NCO08	MSA scatter	Low	Yes	None	31° 45.870'S 27° 41.795'E
NCO09	Cluster of settlements	Low/High	Possible	Reroute cable to opposite side of road, Monitor	31° 50.565'S 27° 42.883'E
NCO10	Cluster of settlements	Low/High	Possible	Reroute cable to this side of road, map & Monitor	31° 50.498'S 27° 42.709'E
NCO11a	Cluster of settlements	Low/High	Possible	Monitor	31° 50.500'S 27° 42.562'E
NCO11b	Cluster of settlements	Low/High	Possible	Reroute cable to this side of road, map & Monitor	31° 50.588'S 27° 42.544'E
NCO012	MSA, LSA scatter	Low-medium	Yes	Sample	31° 48.903'S 27° 43.611'E
NCO016	Byre & grave	High	May not be affected	N/A	31° 46.668'S 27° 41.713'E

CONCLUSION

Umlando was contracted to undertake a HIA of the proposed Ncora Wind Farm and Photovoltaic area. The proposed development is for 15 – 18 Turbines to be placed on the tops of the hills ~10km north of Ngqamakhwe, E. Cape. Additional impacts would be the access roads and cable lines between the turbines and to the substations.

The desktop study noted that there were 55 old settlements that predate 1964 in the general study area. The survey visited these settlements, in addition to the location of the turbines and cable lines. The survey also located 14 new sites. Many of the settlements still existed; however, some had been removed due to ploughing activities, erosion, and rebuilding. I also noted that the settlements have a high probability of graves, where graves were not directly observed. The problem was that the graves may have been originally marked with sods of earth and branches, and these would have disappeared by now. I treated all settlements as having potential graves. The settlements formed clusters of human occupation, and these people were probably related by kinship. I suggested that the clusters should not be affected as they have research potential regarding historical settlements patterns. If the cable lines could not be moved, for technical purposes, then each cluster would need to be mapped, possibly excavated, and monitored during construction. All sites within 50m of any construction activity will need to be clearly demarcated. A heritage impact assessor should undertake the mitigation.

The cable line will need to be relocated in some areas to cause minimal impact on historical settlements.

The photovoltaic farm will need to be partially relocated so that it does not affect the site NCO04 that has several graves. In addition to this area will need to be sampled for stone tools.

REFERENCES

- Anderson, G. 2009a. Heritage Survey of the Proposed Mcwasa Dam, Wild Coast, Eastern Cape. For Aurecon South Africa (Pty) Ltd
- Anderson, G. 2009b. Heritage Survey of the Chris Hani Cluster 9 Water Project, Eastern Cape. For Maluti GSM Consulting Engineers
- Anderson, G. 2009c. Heritage Survey of the Hluleka Road, Wild Coast, Eastern Cape. For Coastal & Environmental Services
- Anderson, G. 2010a. Heritage Survey of the Proposed Hombe Transmission Line. For Coastal Environmental Services
- Anderson, G. 2010b. Heritage Survey of the Proposed Mfinizo Transmission Line. For Coastal Environmental Services
- Anderson, G. 2011a .Heritage Survey of the Proposed Ngqamakhwe Wind Energy Project. For Coastal Environmental Services
- Anderson, G. 2011b.Heritage Survey of the Proposed Qunu Wind Energy Project. For Coastal Environmental Services
- Derricourt, R.M. 1977. **Prehistoric Man in the Ciskei and Transkei**. Cape Town: C. Struik (Pty) Ltd
- Feeley, J.M. 1987 **The Early Farmers of Transkei, Southern Africa, Before AD 1870**. Cambridge Monographs in African_Archaeology 24. BAR International Series 378. Cambridge.
- Lewis, C.and Mrara, A.Z., 2010. Rural settlements, mission settlements and rehabilitation in Transkei. **GeoJournal 12(4)**: 375-386
- Van Ryneveld, K. 2010. Proposed Construction Of The Balmoral – Florida Collector Sewerage System Near Uitenhage And Despatch, Eastern Cape, South Africa. 2011-01-03. Archaeomaps Archaeological Consultancy
- Van Ryneveld, K. 2011. Gqaga Villages Water Reticulation Supply Scheme – Bulk water Supply Backlog: Ngcobo Cluster 6, Eastern Cape, South Africa 2011-01-14. Archaeomaps Archaeological Consultancy

**APPENDIX A
SITE RECORD FORMS**

UMLANDO ARCHAEOLOGICAL SITE RECORD FORM



SITE CATEGORY: (X where applicable)

Stone Age:
Early Iron Age:
Late Iron Age
Historical Period:

Recorder's Site No.: NCO2
Official Name:
Local Name: KwamZola
Map Sheet: 3127DC Ncora Dam
GPS reading: S31 49.135 E27 44.455

DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.

1. R409 and R61 intersection S32 00.259 E27 46.665
2. Get on R61 and drive northeast 0 m S32 00.259 E27 46.665
3. Turn left onto Road 14.4 km14.4 kmS31 53.740 E27 50.352
4. NCO02 28.0 km13.7 kmS31 49.135 E27 44.455

SITE DESCRIPTION:

Type of Site: settlement
Merits conservation: yes
Threats: Yes
What threats: possible wind farm infrastructure

RECORDING:

Graphic record: Yes
Digital pictures: x Tracings : Re-drawings:

Recorder/Informant: Name: Gavin Anderson
Address: PO Box 102532, Meerensee, 3901
Date: 11-12 Jan. 2011
Owner: State

Description of site and artefactual content.

NCO2 is an area of abandoned houses. The houses date between 1964 and 1995, as seen on the associated topographical maps. These buildings may be associated with NCO01. I did not observe any graves in this area.

UMLANDO ARCHAEOLOGICAL SITE RECORD FORM



SITE CATEGORY: (X where applicable)

Stone Age:
Early Iron Age:
Late Iron Age
Historical Period:

Recorder's Site No.: NCO07
Official Name:
Local Name: Kumbaxa
Map Sheet: 3127DC Ncora Dam
GPS reading: S31 47.124 E27 42.083

DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.

1. R409 and R61 intersection S32 00.259 E27 46.665
2. Get on R61 and drive northeast 0 m S32 00.259 E27 46.665
3. Turn left onto Road 14.4 km 14.4 km S31 53.740 E27 50.352
4. NCO07 33.4 km 19.0 km S31 47.124 E27 42.083

SITE DESCRIPTION:

Type of Site: settlement
Merits conservation: yes
Threats: Yes
What threats: possible wind farm infrastructure

RECORDING:

Graphic record: Yes
Digital pictures: x Tracings : Re-drawings:

Recorder/Informant: Name: Gavin Anderson
Address: PO Box 102532, Meerensee, 3901
Date: 11-12 Jan. 2011
Owner: State

Description of site and artefactual content.

NCO07 is a group of two settlements that occur on the 1964 map. The northern settlement consists of a row of three houses, with a fourth house just behind this row. There are two attached square mudbrick walls in front of the house. The southern settlement is less well preserved and only has the foundations of a mudbrick wall for a cattle byre. I did not observe any burials, but these may be subsurface.

UMLANDO ARCHAEOLOGICAL SITE RECORD FORM**SITE CATEGORY:** (X where applicable)

Stone Age:
 Early Iron Age:
 Late Iron Age:
 Historical Period:

Recorder's Site No.: NCO08

Official Name:

Local Name:

Map Sheet: 3127DC Ncora Dam

GPS reading: S31 45.870 E27 41.795

**DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.**

1. R409 and R61 intersection S32 00.259 E27 46.665
2. Get on R61 and drive northeast 0 m S32 00.259 E27 46.665
3. Turn left onto Road 14.4 km 14.4 km S31 53.740 E27 50.352
4. Turn left onto Unpaved Road 37.3 km 22.9 km S31 45.361 E27 41.805
5. NCO08 38.3 km 973 m S31 45.870 E27 41.795

SITE DESCRIPTION:

Type of Site: settlement

Merits conservation: yes

Threats: Yes

What threats: possible wind farm infrastructure

RECORDING:

Graphic record: Yes

Digital pictures: x

Tracings :

Re-drawings:

Recorder/Informant: Name: Gavin Anderson

Address: PO Box 102532, Meerensee, 3901

Date: 11-12 Jan. 2011

Owner: State

Description of site and artefactual content.

NCO08 occurs on the top of the hill and in the road cutting. The site consists of two MSA flakes and both had a faceted platform. The tools were made from dolerite. More stone tools would occur in the area, and thus I recorded the two artefacts as a site. The tools are in a secondary context and there is no archaeological deposit.

UMLANDO ARCHAEOLOGICAL SITE RECORD FORM**SITE CATEGORY:** (X where applicable)

Stone Age:

Early Iron Age:

Late Iron Age:

Historical Period:

Recorder's Site No.: NCO09

Official Name:

Local Name:

Map Sheet: 3127DC Ncora Dam

GPS reading: S31 50.565 E27 42.883

**DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.**

1. R409 and R61 intersection S32 00.259 E27 46.665
2. Get on R61 and drive northeast 0 m S32 00.259 E27 46.665
3. Turn left onto Road 14.4 km 14.4 km S31 53.740 E27 50.352
4. Turn left onto Road 27.4 km 13.1 km S31 49.268 E27 44.730
5. NCO09 31.5 km 4.0 km S31 50.565 E27 42.883

SITE DESCRIPTION:

Type of Site: settlement

Merits conservation: yes

Threats: Yes

What threats: possible wind farm infrastructure

RECORDING:

Graphic record: Yes

Digital pictures: x

Tracings :

Re-drawings:

Recorder/Informant: Name: Gavin Anderson

Address: PO Box 102532, Meerensee, 3901

Date: 11-12 Jan. 2011

Owner: State

Description of site and artefactual content.

NCO09 consists of eight settlements and one school. Only the northern settlement and the school occur on the 1964 map, and I presume the others predate this as they are less well preserved. The school does not exist anymore. The area is referred to as Ngaca on the 1964 topographical map. All of the settlements have circular cattle byres, with the exception of the northernmost that has a rectangular byre. Several of the house foundations are well preserved. Only the settlement with the rectangular byre has well-preserved house foundations. I did not observe any graves, although they may be subsurface.

UMLANDO ARCHAEOLOGICAL SITE RECORD FORM



SITE CATEGORY: (X where applicable)

Stone Age:
Early Iron Age:
Late Iron Age:
Historical Period:

Recorder's Site No.: NCO010
Official Name:
Local Name:
Map Sheet: 3127DC Ncora Dam
GPS reading: S31 50.498 E27 42.709

DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.

1. R409 and R61 intersection S32 00.259 E27 46.665
2. Get on R61 and drive northeast 0 m S32 00.259 E27 46.665
3. Turn left onto Road 14.4 km 14.4 km S31 53.740 E27 50.352
4. Turn left onto Road 27.4 km 13.1 km S31 49.268 E27 44.730
5. NCO010 31.8 km 4.4 km S31 50.498 E27 42.709

SITE DESCRIPTION:

Type of Site: settlement
Merits conservation: yes
Threats: Yes
What threats: possible wind farm infrastructure

RECORDING:

Graphic record: Yes
Digital pictures: x Tracings : Re-drawings:

Recorder/Informant: Name: Gavin Anderson
Address: PO Box 102532, Meerensee, 3901
Date: 11-12 Jan. 2011
Owner: State

Description of site and artefactual content.

NCO010 is referred to as Mpotyo on the 1964 topographical map. The village has ~30 settlements of which NCO10, and NCO11, form a part. NCO010 consists of at least three settlements on the slope of the hill, and a fourth settlement on the less steep slope. Only these four were noted, as the cable line would not extend further. Each settlement has 3 – 4 houses in a row, but only one has a visible stone walled cattle byre. The lower settlement has a square cattle byre that is made from mudbrick foundations. The lower two sites do not occur on the 1964 map and probably predate it, as they are less well preserved. I did not observe any graves at the site.

UMLANDO ARCHAEOLOGICAL SITE RECORD FORM**SITE CATEGORY:** (X where applicable)

Stone Age:
 Early Iron Age:
 Late Iron Age:
 Historical Period:

Recorder's Site No.: NCO011a

Official Name:

Local Name:

Map Sheet: 3127DC Ncora Dam

GPS reading: S31 50.500 E27 42.562

**DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.**

1. R409 and R61 intersection S32 00.259 E27 46.665
2. Get on R61 and drive northeast 0 m S32 00.259 E27 46.665
3. Turn left onto Road 14.4 km 14.4 km S31 53.740 E27 50.352
4. Turn left onto Road 27.4 km 13.1 km S31 49.268 E27 44.730
5. Turn right onto Unpaved Road 32.3 km 4.9 km S31 50.587 E27 42.340
6. NCO011a 32.8 km 447 m 0:01:14 0:40:05 129° true S31 50.500 E27 42.562

SITE DESCRIPTION:

Type of Site: settlement
 Merits conservation: yes
 Threats: Yes
 What threats: possible wind farm infrastructure

RECORDING:

Graphic record: Yes

Digital pictures: x

Tracings :

Re-drawings:

Recorder/Informant: Name: Gavin Anderson

Address: PO Box 102532, Meerensee, 3901

Date: 11-12 Jan. 2011

Owner: State

Description of site and artefactual content.

NCO011a occurs on the opposite side of the hill to NCO010. The site consists of three house foundations, a rectangular cattle byre, and a grave. The grave dates to the 1970s, and occurs on the 1964 topographical map. There was another settlement ~120m to the west; however, it does not exist anymore. The site is located about 70m north of the cable line.

UMLANDO ARCHAEOLOGICAL SITE RECORD FORM



SITE CATEGORY: (X where applicable)

Stone Age:
Early Iron Age:
Late Iron Age:
Historical Period:

Recorder's Site No.: NCO011b
Official Name:
Local Name:
Map Sheet: 3127DC Ncora Dam
GPS reading: S31 50.588 E27 42.544

DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.

1. R409 and R61 intersection S32 00.259 E27 46.665
2. Get on R61 and drive northeast 0 m S32 00.259 E27 46.665
3. Turn left onto Road 14.4 km 14.4 km S31 53.740 E27 50.352
4. Turn left onto Road 27.4 km 13.1 km S31 49.268 E27 44.730
5. NCO011b 32.1 km 4.6 km S31 50.588 E27 42.544

SITE DESCRIPTION:

Type of Site: settlement
Merits conservation: yes
Threats: Yes
What threats: possible wind farm infrastructure

RECORDING:

Graphic record: Yes
Digital pictures: x Tracings : Re-drawings:

Recorder/Informant: Name: Gavin Anderson
Address: PO Box 102532, Meerensee, 3901
Date: 11-12 Jan. 2011
Owner: State

Description of site and artefactual content.

NCO011b is part of the Ngcaca or Mpotyo area on the 1964 topographical map and includes site 051. This map only has five settlements, while the area contains a total of ten settlements: the rest predate 1964. The cluster of sites occurs on the flattened area on top of the hill and along the slopes of the hill. Each settlement has a single row of three – four houses, a small cattle byre, and an agricultural field. The byres tend to be near the houses, as opposed to NCO010 where they are further away. The settlements are in various stages of preservation, with those closest to the road the least well preserved. The eastern most settlement has an extensive mudbrick outer perimeter wall. I did not observe any graves at this site; however, they may be subsurface.

UMLANDO ARCHAEOLOGICAL SITE RECORD FORM**SITE CATEGORY:** (X where applicable)

Stone Age:
 Early Iron Age:
 Late Iron Age:
 Historical Period:



Recorder's Site No.: Site 01

Official Name:

Local Name:

Map Sheet: 3127DC Ncora Dam

GPS reading: S31 52.338 E27 38.335

DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.

1. R409 and R61 intersection S32 00.259 E27 46.665
2. Get on R61 and drive southwest 0 m S32 00.259 E27 46.665
3. Turn right onto Road 19.5 km 19.5 km S32 00.586 E27 34.934
4. Turn left onto Road 20.0 km 529 m S32 00.358 E27 35.114
5. Turn right onto Road 30.0 km 9.9 km S31 55.758 E27 33.277
6. 1 42.6 km 12.6 km S31 52.338 E27 38.335 1298 m

SITE DESCRIPTION:

Type of Site: settlement

Merits conservation: yes

Threats: Yes

What threats: possible wind farm infrastructure

RECORDING:

Graphic record: Yes

Digital pictures: x

Tracings :

Re-drawings:

Recorder/Informant: Name: Gavin Anderson

Address: PO Box 102532, Meerensee, 3901

Date: 11-12 Jan. 2011

Owner: State

Description of site and artefactual content.

Site 01 is located on the top the hill and predates 1964. The site consists of four house floors. I did not observe a cattle byre or graves.

UMLANDO ARCHAEOLOGICAL SITE RECORD FORM**SITE CATEGORY:** (X where applicable)

Stone Age:
 Early Iron Age:
 Late Iron Age:
 Historical Period:

Recorder's Site No.: Site 02

Official Name:

Local Name:

Map Sheet: 3127DC Ncora Dam

GPS reading: S31 52.420 E27 38.225

**DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.**

- | | | |
|----|--------------------------------|-------------------------------|
| 1. | R409 and R61 intersection | S32 00.259 E27 46.665 |
| 2. | Get on R61 and drive southwest | 0 m S32 00.259 E27 46.665 |
| 3. | Turn right onto Road 19.5 km | 19.5 km S32 00.586 E27 34.934 |
| 4. | Turn left onto Road 20.0 km | 529 m S32 00.358 E27 35.114 |
| 5. | Turn right onto Road 30.0 km | 9.9 km S31 55.758 E27 33.277 |
| 6. | 2 42.8 km 12.8 km | S31 52.420 E27 38.225 |

SITE DESCRIPTION:

Type of Site: settlement
 Merits conservation: yes
 Threats: Yes
 What threats: possible wind farm infrastructure

RECORDING:

Graphic record: Yes

Digital pictures: x

Tracings :

Re-drawings:

Recorder/Informant: Name: Gavin Anderson

Address: PO Box 102532, Meerensee, 3901

Date: 11-12 Jan. 2011

Owner: State

Description of site and artefactual content.

The site is situated ~200m southwest of Site 1. It consists of three house floors and a stone walled cattle byre. There are only three sides of walling in the byre. I did not observe any graves at the site. The site will not be affected by the turbines or cable line. The site predates 1964.

UMLANDO ARCHAEOLOGICAL SITE RECORD FORM



SITE CATEGORY: (X where applicable)

Stone Age:
Early Iron Age:
Late Iron Age
Historical Period:

Recorder's Site No.: Site 04
Official Name:
Local Name:
Map Sheet: 3127DC Ncora Dam
GPS reading: S31 52.266 E27 38.288

DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.

- 1. R409 and R61 intersection S32 00.259 E27 46.665
- 2. Get on R61 and drive southwest 0 m S32 00.259 E27 46.665
- 3. Turn right onto Road 19.5 km 19.5 km S32 00.586 E27 34.934
- 4. Turn left onto Road 20.0 km 529 m S32 00.358 E27 35.114
- 5. Turn right onto Road 30.0 km 9.9 km S31 55.758 E27 33.277
- 6. 3 42.7 km 12.7 km S31 52.266 E27 38.288

SITE DESCRIPTION:

Type of Site: settlement
Merits conservation: yes
Threats: Yes
What threats: possible wind farm infrastructure

RECORDING:

Graphic record: Yes
Digital pictures: x Tracings : Re-drawings:

Recorder/Informant: Name: Gavin Anderson
Address: PO Box 102532, Meerensee, 3901
Date: 11-12 Jan. 2011
Owner: State

Description of site and artefactual content.

The site is situated ~150m northeast of Turbine WWD3 11, or V80 13. It consists of three house floors. I did not observe any graves at the site. The site predates 1964. The site will not be affected by the turbines or cable line

UMLANDO ARCHAEOLOGICAL SITE RECORD FORM**SITE CATEGORY:** (X where applicable)

Stone Age:
 Early Iron Age:
 Late Iron Age
 Historical Period:

Recorder's Site No.: Site 05
 Official Name:
 Local Name:
 Map Sheet: 3127DC Ncora Dam
 GPS reading: S31 52.156 E27 38.423

**DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.**

1. R409 and R61 intersection S32 00.259 E27 46.665
2. Get on R61 and drive northeast 0 m S32 00.259 E27 46.665
3. Turn left onto Road 14.4 km 14.4 km S31 53.740 E27 50.352
4. Turn left onto Road 27.4 km 13.1 km S31 49.268 E27 44.730
5. Turn right onto Unpaved Road 40.2 km 12.7 km S31 52.007 E27 38.803
6. 5 40.9 km 783 m S31 52.156 E27 38.423

SITE DESCRIPTION:

Type of Site: settlement
 Merits conservation: yes
 Threats: Yes
 What threats: possible wind farm infrastructure

RECORDING:

Graphic record: Yes
 Digital pictures: x Tracings : Re-drawings:

Recorder/Informant: Name: Gavin Anderson
 Address: PO Box 102532, Meerensee, 3901
 Date: 11-12 Jan. 2011
 Owner: State

Description of site and artefactual content.

The site is situated ~80m north of Site 04. Site 05 consists of four house foundations and at foundations of a small byre. The byre is ~5m x 8m. The houses appear to form a semi-circle around the byre, as opposed to the normal row of houses at other sites (see Site 08). I did not observe any graves. The site predates 1964.

UMLANDO ARCHAEOLOGICAL SITE RECORD FORM**SITE CATEGORY:** (X where applicable)

Stone Age:
Early Iron Age:
Late Iron Age:
Historical Period:

Recorder's Site No.: Site 08

Official Name:

Local Name:

Map Sheet: 3127DC Ncora Dam

GPS reading: S31 52.132 E27 38.513

DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.

1. R409 and R61 intersection S32 00.259 E27 46.665
2. Get on R61 and drive northeast 0 m S32 00.259 E27 46.665
3. Turn left onto Road 14.4 km 14.4 km S31 53.740 E27 50.352
4. Turn left onto Road 27.4 km 13.1 km S31 49.268 E27 44.730
5. Turn right onto Unpaved Road 40.2 km 2.7 km S31 52.007 E27 38.803
6. 8 40.7 km 592 m S31 52.132 E27 38.513

SITE DESCRIPTION:

Type of Site: settlement

Merits conservation: yes

Threats: Yes

What threats: possible wind farm infrastructure

RECORDING:

Graphic record: Yes

Digital pictures: x

Tracings :

Re-drawings:

Recorder/Informant: Name: Gavin Anderson

Address: PO Box 102532, Meerensee, 3901

Date: 11-12 Jan. 2011

Owner: State

Description of site and artefactual content.

Site 08 is located 280m east of the cable line and will not be affected. The site is also lower down on the hill and thus would not be affected by turbines. It is for this reason that the site was not surveyed, but only noted. The site consists of ~10 houses in a semi-circle around a small stone walled byre. The site is unusual in that the houses are not in the normal rows. Graves may occur at the site that also predates 1964. The features appear to be well preserved, as they are very visible in the aerial photographs.

UMLANDO ARCHAEOLOGICAL SITE RECORD FORM



SITE CATEGORY: (X where applicable)

Stone Age:
Early Iron Age:
Late Iron Age
Historical Period:

Recorder's Site No.: Site 012

Official Name:

Local Name:

Map Sheet: 3127DC Ncora Dam

GPS reading: S31 52.121 E27 38.802

DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.

1. R409 and R61 intersection S32 00.259 E27 46.665
2. Get on R61 and drive northeast 0 m S32 00.259 E27 46.665
3. Turn left onto Road 14.4 km 14.4 km S31 53.740 E27 50.352
4. Turn left onto Road 27.4 km 13.1 km S31 49.268 E27 44.730
5. 12 40.4 km 13.0 km S31 52.121 E27 38.802

SITE DESCRIPTION:

Type of Site: settlement
Merits conservation: yes
Threats: Yes
What threats: possible wind farm infrastructure

RECORDING:

Graphic record: Yes

Digital pictures: x

Tracings :

Re-drawings:

Recorder/Informant: Name: Gavin Anderson

Address: PO Box 102532, Meerensee, 3901

Date: 11-12 Jan. 2011

Owner: State

Description of site and artefactual content.

These seven sites occur below the main hill and will not be affected by the development. They were noted before the survey, in case new access roads, or cable lines were made. All of the sites are settlements that occur on the 1964 map and consist of houses and cattle byres.

UMLANDO ARCHAEOLOGICAL SITE RECORD FORM



SITE CATEGORY: (X where applicable)

Stone Age:
Early Iron Age:
Late Iron Age
Historical Period:

Recorder's Site No.: Site 015
Official Name:
Local Name:
Map Sheet: 3127DC Ncora Dam
GPS reading: S31 52.179 E27 37.999

DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.

1. R409 and R61 intersection S32 00.259 E27 46.665
2. Get on R61 and drive northeast 0 m S32 00.259 E27 46.665
3. Turn left onto Road 14.4 km 14.4 km S31 53.740 E27 50.352
4. Turn left onto Road 27.4 km 13.1 km S31 49.268 E27 44.730
5. Turn right onto Unpaved Road 40.2 km 12.7 km S31 52.007 E27 38.803
6. 15 41.6 km 1.4 km S31 52.179 E27 37.999

SITE DESCRIPTION:

Type of Site: settlement
Merits conservation: yes
Threats: Yes
What threats: possible wind farm infrastructure

RECORDING:

Graphic record: Yes
Digital pictures: x Tracings : Re-drawings:

Recorder/Informant: Name: Gavin Anderson
Address: PO Box 102532, Meerensee, 3901
Date: 11-12 Jan. 2011
Owner: State

Description of site and artefactual content.

Site 015 is located just below the top of the main hill. It was surveyed, even though it is 500m from the line, in case a turbine is relocated nearby. The site consists of a single stone walled cattle byre, or the outer wall of a house.

UMLANDO ARCHAEOLOGICAL SITE RECORD FORM**SITE CATEGORY:** (X where applicable)

Stone Age:
 Early Iron Age:
 Late Iron Age:
 Historical Period:



Recorder's Site No.: Sites 033 - 040

Official Name:

Local Name: Kumbaxa

Map Sheet: 3127DC Ncora Dam

GPS reading: S31 47.639 E27 42.349

DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.

1. R409 and R61 intersection S32 00.259 E27 46.665
2. Get on R61 and drive northeast 0 m S32 00.259 E27 46.665
3. Turn left onto Road 14.4 km 14.4 km S31 53.740 E27 50.352
4. Turn left onto Unpaved Road 32.6 km 18.2 km S31 47.490 E27 42.270
5. Turn left onto Unpaved Road 32.7 km 96 m S31 47.524 E27 42.225
6. 33 33.1 km 355 m 0:00:51 0:40:24 61° true S31 47.639 E27 42.349
7. 34 S31 47.456 E27 42.269
8. 35 S31 47.529 E27 42.274
9. 36 S31 47.392 E27 42.180
10. 37 S31 47.316 E27 42.148
11. 38 S31 47.190 E27 42.155
12. 39 S31 47.142 E27 42.126
13. 40 S31 47.606 E27 42.241

SITE DESCRIPTION:

Type of Site: settlement
 Merits conservation: yes
 Threats: Yes
 What threats: possible wind farm infrastructure

RECORDING:

Graphic record: Yes

Digital pictures: x

Tracings :

Re-drawings:

Recorder/Informant: Name: Gavin Anderson

Address: PO Box 102532, Meerensee, 3901

Date: 11-12 Jan. 2011

Owner: State

Description of site and artefactual content.

These eight sites occur on the 1964 topographical map as houses. They do not exist anymore as they have been built over or disturbed through erosion. The only impact would have been the cable line

UMLANDO ARCHAEOLOGICAL SITE RECORD FORM**SITE CATEGORY:** (X where applicable)

Stone Age:
 Early Iron Age:
 Late Iron Age
 Historical Period:

Recorder's Site No.: Sites 041 - 049
 Official Name:
 Local Name:
 Map Sheet: 3127DC Ncora Dam
 GPS reading: S31 46.898 E27 41.866

**DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.**

1. R409 and R61 intersection S32 00.259 E27 46.665
2. Get on R61 and drive northeast 0 m S32 00.259 E27 46.665
3. Turn left onto Road 14.4 km 14.4 km S31 53.740 E27 50.352
4. 41 34.1 km 19.7 km S31 46.898 E27 41.866
5. 42 S31 46.728 E27 41.749
6. 43 S31 46.666 E27 41.754
7. 44 S31 46.692 E27 41.902
8. 45 S31 46.625 E27 41.862
9. 46 S31 46.592 E27 41.809
10. 47 S31 46.867 E27 41.828
11. 48 S31 46.814 E27 41.777
12. 49 S31 46.777 E27 41.722

SITE DESCRIPTION:

Type of Site: settlement
 Merits conservation: yes
 Threats: Yes
 What threats: possible wind farm infrastructure

RECORDING:

Graphic record: Yes
 Digital pictures: x

Tracings :

Re-drawings:

Recorder/Informant: Name: Gavin Anderson
 Address: PO Box 102532, Meerensee, 3901
 Date: 11-12 Jan. 2011
 Owner: State

Description of site and artefactual content.

These sites form a cluster of settlements that formed a village. All sites are noted in case the cable line is rerouted, however only a few were surveyed. Only sites 43, 44 and NCO016 occur within 50m of the proposed cable line, while the rest are 80m or more further away. All of the sites occur on the 1964 topographical map.

UMLANDO ARCHAEOLOGICAL SITE RECORD FORM



SITE CATEGORY: (X where applicable)

Stone Age:
Early Iron Age:
Late Iron Age
Historical Period:

Recorder's Site No.: NC016
Official Name:
Local Name:
Map Sheet: 3127DC Ncora Dam
GPS reading: S31 46.668 E27 41.713

DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.

1. R409 and R61 intersection S32 00.259 E27 46.665
2. Get on R61 and drive northeast 0 m S32 00.259 E27 46.665
3. Turn left onto Road 14.4 km1 4.4 km S31 53.740 E27 50.352
4. nco16 34.7 km20.3 km S31 46.668 E27 41.713

SITE DESCRIPTION:

Type of Site: settlement
Merits conservation: yes
Threats: Yes
What threats: possible wind farm infrastructure

RECORDING:

Graphic record: Yes
Digital pictures: x Tracings : Re-drawings:

Recorder/Informant: Name: Gavin Anderson
Address: PO Box 102532, Meerensee, 3901
Date: 11-12 Jan. 2011
Owner: State

Description of site and artefactual content.

NC016 consists of a stone walled cattle byre and a grave. There are possible house remains to the east. The cattle byre is one of the few walls in this survey that have a double row of stones with rubble infill. Only a part of the byre still remains. The grave associated with byre has a concrete headstone that appears to have fallen over. There is no inscription on the headstone.

UMLANDO ARCHAEOLOGICAL SITE RECORD FORM



SITE CATEGORY: (X where applicable)

Stone Age:
Early Iron Age:
Late Iron Age
Historical Period:

Recorder's Site No.: Site 43
Official Name:
Local Name:
Map Sheet: 3127DC Ncora Dam
GPS reading: S31 46.666 E27 41.754

DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.

1. R409 and R61 intersection S32 00.259 E27 46.665
2. Get on R61 and drive northeast 0 m S32 00.259 E27 46.665
3. Turn left onto Road 14.4 km 14.4 km S31 53.740 E27 50.352
4. 43 34.6 km 20.2 km S31 46.666 E27 41.754

SITE DESCRIPTION:

Type of Site: settlement
Merits conservation: yes
Threats: Yes
What threats: possible wind farm infrastructure

RECORDING:

Graphic record: Yes
Digital pictures: x Tracings : Re-drawings:

Recorder/Informant: Name: Gavin Anderson
Address: PO Box 102532, Meerensee, 3901
Date: 11-12 Jan. 2011
Owner: State

Description of site and artefactual content.

The 1964 topographical map only shows one house in this area; however, the survey observed three settlements. The first (or highest) settlement (points d and e) consists of a cattle byre in the agricultural field and at least one house foundation. Point 'e' may be a grave.

The second settlement (a, b, c, f) consists of at least two houses (a, f), a stone walled cattle byre (c), and a grave (b).

The next settlement (points g – k) consists of two – three house floors (g-h), a circular cattle byre (i) that has one side dug into the hill, and two graves (j-k). The graves are unmarked and are associated with the byre. Only the graves are well preserved.

UMLANDO ARCHAEOLOGICAL SITE RECORD FORM



SITE CATEGORY: (X where applicable)

Stone Age:
Early Iron Age:
Late Iron Age
Historical Period:

Recorder's Site No.: Site 44
Official Name:
Local Name:
Map Sheet: 3127DC Ncora Dam
GPS reading: S31 46.692 E27 41.902

DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.

1. R409 and R61 intersection S32 00.259 E27 46.665
2. Get on R61 and drive northeast 0 m S32 00.259 E27 46.665
3. Turn left onto Road 14.4 km 14.4 km S31 53.740 E27 50.352
4. 44 34.3 km 19.9 km S31 46.692 E27 41.902

SITE DESCRIPTION:

Type of Site: settlement
Merits conservation: yes
Threats: Yes
What threats: possible wind farm infrastructure

RECORDING:

Graphic record: Yes
Digital pictures: x Tracings : Re-drawings:

Recorder/Informant: Name: Gavin Anderson
Address: PO Box 102532, Meerensee, 3901
Date: 11-12 Jan. 2011
Owner: State

Description of site and artefactual content.

Site 44 consists of three poorly preserved , house floors and an agricultural field. There may be a mudbrick byre in the field. I did not observe any graves at this site.

UMLANDO ARCHAEOLOGICAL SITE RECORD FORM



SITE CATEGORY: (X where applicable)

Stone Age:
Early Iron Age:
Late Iron Age
Historical Period:

Recorder's Site No.: Site 052
Official Name:
Local Name: Mpotyo
Map Sheet: 3127DC Ncora Dam
GPS reading: S31 50.540 E27 42.178

DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.

1. R409 and R61 intersection S32 00.259 E27 46.665
2. Get on R61 and drive northeast 0 m S32 00.259 E27 46.665
3. Turn left onto Road 14.4 km 14.4 km S31 53.740 E27 50.352
4. Turn left onto Road 27.4 km 13.1 km S31 49.268 E27 44.730
5. Turn right onto Unpaved Road 32.5 km 5.1 km S31 50.599 E27 42.226
6. 52 32.7 km 224 m S31 50.540 E27 42.178

SITE DESCRIPTION:

Type of Site: settlement
Merits conservation: yes
Threats: Yes
What threats: possible wind farm infrastructure

RECORDING:

Graphic record: Yes
Digital pictures: x Tracings : Re-drawings:

Recorder/Informant: Name: Gavin Anderson
Address: PO Box 102532, Meerensee, 3901
Date: 11-12 Jan. 2011
Owner: State

Description of site and artefactual content.

Site 052 is noted as a house on the 1964 topographical map. It has been built over with a new house, and thus does not exist anymore.

UMLANDO ARCHAEOLOGICAL SITE RECORD FORM

SITE CATEGORY: (X where applicable)

Stone Age:
Early Iron Age:
Late Iron Age
Historical Period:



Recorder's Site No.: Site 013
Official Name:
Local Name:
Map Sheet:3127DD Ncora Dam
GPS reading: S31 52.177 E27 38.795 1290 m

DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.

1. R409 and R61 intersection S32 00.259 E27 46.665
2. Get on R61 and drive southwest 0 m S32 00.259 E27 46.665
3. Turn right onto Road 19.5 km 19.5 km S32 00.586 E27 34.934
4. Turn left onto Road 20.0 km 529 m S32 00.358 E27 35.114
5. Turn right onto Road 30.0 km 9.9 km S31 55.758 E27 33.277
6. 13 42.3 km 12.3 km S31 52.177 E27 38.795

SITE DESCRIPTION:

Type of Site: settlement
Merits conservation: Yes
Threats: No
What Threats: No possible wind farm infrastructure

RECORDING:

Graphic record: Yes
Digital pictures: x Tracings : Re-drawings:

Recorder/Informant: Name: Gavin Anderson
Address: PO Box 102532, Meerensee, 3901
Date: 11-12 Jan. 2011
Owner: State

Description of site and artefactual content.

Site consists of a settlement dating to 1964

UMLANDO ARCHAEOLOGICAL SITE RECORD FORM

SITE CATEGORY: (X where applicable)

Stone Age:
Early Iron Age:
Late Iron Age
Historical Period:



Recorder's Site No.: Site 021
Official Name:
Local Name:
Map Sheet: 3127DD Ncora Dam
GPS reading: S31 51.497 E27 38.281

DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.

1. R409 and R61 intersection S32 00.259 E27 46.665
2. Get on R61 and drive northeast 0 m S32 00.259 E27 46.665
3. Turn left onto Road 14.4 km 14.4 km S31 53.740 E27 50.352
4. Turn left onto Road 27.4 km 3.1 km S31 49.268 E27 44.730
5. Turn right onto Unpaved Road 40.2 km 12.7 km S31 52.007 E27 38.803
6. 21 42.2 km 2.0 km S31 51.497 E27 38.281

SITE DESCRIPTION:

Type of Site: settlement
Merits conservation: Yes
Threats: No Yes
What Threats: No possible wind farm infrastructure

RECORDING:

Graphic record: Yes
Digital pictures: x Tracings : Re-drawings:

Recorder/Informant: Name: Gavin and Louise Anderson
Address: PO Box 102532, Meerensee, 3901
Date: 11-12 Jan. 2011
Owner: State

Description of site and artefactual content.

Site consists of a settlement dating to 1964

UMLANDO ARCHAEOLOGICAL SITE RECORD FORM

SITE CATEGORY: (X where applicable)

Stone Age:
Early Iron Age:
Late Iron Age
Historical Period:

Recorder's Site No.: Site 022



Official Name:
Local Name:
Map Sheet: 3127DD Ncora Dam
GPS reading: S31 51.530 E27 38.182

DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.

1. R409 and R61 intersection S32 00.259 E27 46.665
2. Get on R61 and drive northeast 0 m S32 00.259 E27 46.665
3. Turn left onto Road 14.4 km 14.4 km S31 53.740 E27 50.352
4. Turn left onto Road 27.4 km 13.1 km S31 49.268 E27 44.730
5. Turn right onto Unpaved Road 40.2 km 12.7 km S31 52.007 E27 38.803
6. 22 42.3 km 2.2 km S31 51.530 E27 38.182

SITE DESCRIPTION:

Type of Site: settlement
Merits conservation: Yes
Threats: No Yes
What Threats: No possible wind farm infrastructure

RECORDING:

Graphic record: Yes
Digital pictures: x Tracings : Re-drawings:

Recorder/Informant: Name: Gavin and Louise Anderson
Address: PO Box 102532, Meerensee, 3901
Date: 11-12 Jan. 2011
Owner: State

Description of site and artefactual content.

Site consists of a settlement dating to 1964

UMLANDO ARCHAEOLOGICAL SITE RECORD FORM

SITE CATEGORY: (X where applicable)

Stone Age:
Early Iron Age:
Late Iron Age
Historical Period:

Recorder's Site No.: Site 028



Official Name:
Local Name:
Map Sheet: 3127DD Ncora Dam
GPS reading: S31 51.438 E27 39.061

DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.

1. R409 and R61 intersection S32 00.259 E27 46.665
2. Get on R61 and drive northeast 0 m S32 00.259 E27 46.665
3. Turn left onto Road 14.4 km 14.4 km S31 53.740 E27 50.352
4. Turn left onto Road 27.4 km 13.1 km S31 49.268 E27 44.730
5. Turn right onto Unpaved Road 40.2 km 12.7 km S31 52.007 E27 38.803
6. 28 42.0 km 1.9 km S31 51.438 E27 39.061

SITE DESCRIPTION:

Type of Site: settlement
Merits conservation: Yes
Threats: No Yes
What Threats: No possible wind farm infrastructure

RECORDING:

Graphic record: Yes
Digital pictures: x Tracings : Re-drawings:

Recorder/Informant: Name: Gavin and Louise Anderson
Address: PO Box 102532, Meerensee, 3901
Date: 11-12 Jan. 2011
Owner: State

Description of site and artefactual content.

Site consists of a settlement dating to 1964

UMLANDO ARCHAEOLOGICAL SITE RECORD FORM

SITE CATEGORY: (X where applicable)

Stone Age:
Early Iron Age:
Late Iron Age
Historical Period:

Recorder's Site No.: Site 029



Official Name:
Local Name:
Map Sheet: 3127DD Ncora Dam
GPS reading: S31 51.596 E27 39.278

DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.

1. R409 and R61 intersection S32 00.259 E27 46.665
2. Get on R61 and drive northeast 0 m S32 00.259 E27 46.665
3. Turn left onto Road 14.4 km 14.4 km S31 53.740 E27 50.352
4. Turn left onto Road 27.4 km 13.1 km S31 49.268 E27 44.730
5. 29 39.7 km 12.2 km S31 51.596 E27 39.278

SITE DESCRIPTION:

Type of Site: settlement
Merits conservation: Yes
Threats: No Yes
What Threats: No possible wind farm infrastructure

RECORDING:

Graphic record: Yes
Digital pictures: x Tracings : Re-drawings:

Recorder/Informant: Name: Gavin and Louise Anderson
Address: PO Box 102532, Meerensee, 3901
Date: 11-12 Jan. 2011
Owner: State

Description of site and artefactual content.

Site consists of a settlement dating to 1964

UMLANDO ARCHAEOLOGICAL SITE RECORD FORM

SITE CATEGORY: (X where applicable)

Stone Age:
Early Iron Age:
Late Iron Age
Historical Period:

Recorder's Site No.: 053



Official Name:
Local Name:
Map Sheet: 3127DD Ncora Dam
GPS reading: S31 51.900 E27 37.849

DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.

1. R409 and R61 intersection S32 00.259 E27 46.665
2. Get on R61 and drive southwest 0 m S32 00.259 E27 46.665
3. Turn right onto Road 19.5 km 19.5 km S32 00.586 E27 34.934
4. Turn left onto Road 20.0 km 529 m S32 00.358 E27 35.114
5. Turn right onto Road 30.0 km 9.9 km S31 55.758 E27 33.277
6. Turn left onto Unpaved Road 37.7 km 7.7 km S31 53.699 E27 37.228
7. Turn right onto Unpaved Road 41.4 km 3.7 km S31 52.467 E27 36.790
8. 53 44.3 km 2.9 km S31 51.900 E27 37.849

SITE DESCRIPTION:

Type of Site: settlement
Merits conservation: Yes
Threats: No Yes
What Threats: No possible wind farm infrastructure

RECORDING:

Graphic record: Yes
Digital pictures: x Tracings : Re-drawings:

Recorder/Informant: Name: Gavin and Louise Anderson
Address: PO Box 102532, Meerensee, 3901
Date: 11-12 Jan. 2011
Owner: State

Description of site and artefactual content.

Site consists of a settlement dating to 1964

UMLANDO ARCHAEOLOGICAL SITE RECORD FORM

SITE CATEGORY: (X where applicable)

Stone Age:
Early Iron Age:
Late Iron Age
Historical Period:



Recorder's Site No.: Site 054
Official Name:
Local Name:
Map Sheet: 3127DD Ncora Dam
GPS reading: S31 51.762 E27 38.545

DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.

1. R409 and R61 intersection S32 00.259 E27 46.665
2. Get on R61 and drive northeast 0 m S32 00.259 E27 46.665
3. Turn left onto Road 14.4 km 14.4 km S31 53.740 E27 50.352
4. Turn left onto Road 27.4 km 13.1 km S31 49.268 E27 44.730
5. Turn right onto Unpaved Road 40.2 km 12.7 km S31 52.007 E27 38.803
6. 54 40.9 km 785 m S31 51.762 E27 38.545

SITE DESCRIPTION:

Type of Site: settlement
Merits conservation: Yes
Threats: No Yes
What Threats: No possible wind farm infrastructure

RECORDING:

Graphic record: Yes
Digital pictures: x Tracings : Re-drawings:

Recorder/Informant: Name: Gavin and Louise Anderson
Address: PO Box 102532, Meerensee, 3901
Date: 11-12 Jan. 2011
Owner: State

Description of site and artefactual content.

Site consists of a settlement dating to 1964

UMLANDO ARCHAEOLOGICAL SITE RECORD FORM

SITE CATEGORY: (X where applicable)

Stone Age:
Early Iron Age:
Late Iron Age
Historical Period:

Recorder's Site No.: Site 055



Official Name:
Local Name:
Map Sheet: 3127DD Ncora Dam
GPS reading: S31 52.841 E27 38.440

DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.

1. R409 and R61 intersection S32 00.259 E27 46.665
2. Get on R61 and drive southwest 0 m S32 00.259 E27 46.665
3. Turn right onto Road 19.5 km 19.5 km S32 00.586 E27 34.934
4. Turn left onto Road 20.0 km 529 m S32 00.358 E27 35.114
5. Turn right onto Road 30.0 km 9.9 km S31 55.758 E27 33.277
6. 55 40.8 km 10.8 km S31 52.841 E27 38.440

SITE DESCRIPTION:

Type of Site: settlement
Merits conservation: Yes
Threats: No Yes
What Threats: No possible wind farm infrastructure

RECORDING:

Graphic record: Yes
Digital pictures: x Tracings : Re-drawings:

Recorder/Informant: Name: Gavin and Louise Anderson
Address: PO Box 102532, Meerensee, 3901
Date: 11-12 Jan. 2011
Owner: State

Description of site and artefactual content.

Site consists of a settlement dating to 1964