Cultural Heritage Impact Assessment:

Phase 1 Investigation of the Proposed Holiday Resort Development, Finfoot Lake Reserve, Vaalkop Dam, Rustenburg Local Municipality, Bojanala Platinum District Municipality, North West Province

For

Project Applicant	**Environmental Consultant** NuLeaf Planning and Environmental (Pty) Ltd 8A Trevor Street Murrayfield Pretoria 0102 Tel: 012 7535792 tosca@nuleaf.co.za

By

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Executive Summary

This report contains a comprehensive heritage impact assessment investigation in accordance with the provisions of Sections 38(1) and 38(3) of the *National Heritage Resources Act* (Act No. 25 of 1999) and focuses on the survey results from a cultural heritage survey as requested by Nuleaf Planning and Environmental (Pty) Ltd. In terms of the 2014 Environmental Impact Assessment (EIA) Regulations published in terms of Section 24(5) of the National Environmental Management Act 107 of 1998 (NEMA), the intent is to apply for Environmental Authorisation as part of a Basic Assessment process from the North West Department of Rural, Environment and Agricultural Development (READ) as the competent authority, for the proposed Holiday Resort Development, Finfoot Lake Reserve, Vaalkop Dam, Rustenburg Local Municipality, North-West Province.

Stone Age settlements

No Stone Age settlements, structures, features, assemblages or artefacts were recorded during the survey.

Iron Age settlements

No Late Iron Age artefacts, structures, features or settlements were identified during the survey.

Graveyards

No Graveyards or individual graves were identified.

Historical structures

No historical buildings or structure were recorded.

Recommendations

As a result of the investigation of the survey footprint note that no archaeological (Stone Age and Iron Age) or historical settlements, structures, features, assemblages or artefacts were recorded during the survey.

It is therefore recommended, from a cultural heritage perspective, that the proposed chalets and holiday homes development and associated infrastructure may proceed.

However, please note:

Archaeological deposits usually occur below ground level. Should archaeological artefacts or skeletal material be revealed in the area during development activities, such activities should be halted, and a university or museum notified in order for an investigation and evaluation of the find(s) to take place **(*cf*. NHRA (Act No. 25 of 1999)**, Section 36 (6)).

Definitions and abbreviations

Midden:	Refuse that accumulates in a concentrated heap.
Stone Age:	An archaeological term used to define a period of stone tool use and manufacture
Iron Age:	An archaeological term used to define a period associated with domesticated livestock and grains, metal working and ceramic manufacture
LIA:	Late Iron Age sites are usually demarcated by stone-walled enclosures
NHRA:	National Heritage Resources Act (Act No. 25 of 1999)
SAHRA:	South African Heritage Resources Agency
SAHRIS:	South African Heritage Resources Information System
PHRA-G:	Provincial Heritage Resources Authority - Gauteng
GDARD:	Gauteng Department of Agriculture and Rural Development
HIA:	Heritage Impact Assessment
DMR:	Department of Mineral Resources
READ:	North West Department of Rural, Environment and Agricultural Development

I, Francois Coetzee, hereby confirm my independence as a cultural heritage specialist and declare that I do not have any interest, be it business, financial, personal or other, in any proposed activity, application or appeal in respect of the listed environmental processes, other than fair remuneration for work performed on this project.

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1. Introduction and Terms of Reference

NuLeaf Planning and Environmental (Pty) Ltd an independent environmental consultant was appointed to undertake a Basic Assessment (BA) process provided for in Regulation 19 read with Appendix 1 of GN R326 of 4 December 2014 of the 2014 EIA Regulations, as amended published under NEMA will be followed for the application for Environmental Authorisation. In terms of the 2014 Environmental Impact Assessment (EIA) Regulations published in terms of Section 24(5) of the National Environmental Management Act 107 of 1998 (NEMA), the intent is to apply for Environmental Authorisation from the North West Department of Rural, Environment and Agricultural Development (READ) as the competent authority, for the proposed Holiday Resort Development, Finfoot Lake Reserve, Vaalkop Dam, Rustenburg Local Municipality, North-West Province.

2. Objectives

The general objective of the cultural heritage survey is to record and document cultural heritage remains consisting of both tangible and intangible archaeological and historical artefacts, structures (including graves), settlements and oral traditions of cultural significance.

As such the terms of reference of this survey are as follows:

- Identify and provide a detailed description of all artefacts, assemblages, settlements and structures of an archaeological or historical nature (cultural heritage sites) located on the study area,
- Estimate the level of significance/importance of these remains in terms of their archaeological, historical, scientific, social, religious, aesthetic and tourism value,
- Assess any impact on the archaeological and historical remains within the area emanating from the development activities, and
- Propose recommendations to mitigate heritage resources where complete or partial conservation may not be possible and thereby limit or prevent any further impact.

3. Description of Physical Environment of Study Area

The heritage survey focussed on an area situated adjacent to the Vaalkop Dam within the Rustenburg Local Municipality, in the Bojanala Platinum District Municipality, in the North West Province, approximately 35 km east of Sun City.

Farm Name(s) and Portions	Vaalkop 76 JQ • Remainder of Portion 2
Size of Survey Area	Approximately 1 hectare
Magisterial Districts	Rustenburg Local Municipality Bojanala Platinum District Municipality
1:50 000 Map Sheet	2527AD
1:250 0000 Map Sheet	2526
Central Coordinates of the Development	27.440850°E 25.326435°S

Table 1: Physical Environment

The survey area falls within the Savanna Biome, particularly the Central Bushveld Bioregion and more specifically the Central Sandy Bushveld (SVcb12). This vegetation type occurs in Limpopo, Mpumalanga, Gauteng and North West Provinces. This veld type is recorded on undulating terrain occurs mainly in a broad arc south of the Springbokvlakte from the Pilanesberg in the west through Hammanskraal and Groblersdal to GaMasemola in the east. Also occurs in a generally narrow irregular band along the northwestern edge of the Springbokvlakte (including Modimolle) extending into a series of valleys and lower-altitude areas within the Waterberg including the upper Mokolo River Valley near Vaalwater, the corridor between Rankins Pass and the Doorndraai Dam, and the lowlands from the Mabula area to south of the Hoekberge. Some isolated sandy rises are found on the Springbokvlakte (Mucina & Rutherford 2010).

The survey area is characterised by open flat areas mostly covered in grass planes and intermittent medium to small tree cover. The survey footprint borders the Vaalkop Dam (Elands River) on the northern border. The Finfoot Lake Reserve includes existing infrastructure such as several dirt roads, the Nyala Lodge, several chalets, thatched lapa, conference centre as well as power lines and fences.

The Pilanesberg region is located within an area of summer rainfall which is characterized by afternoon thunderstorms. December and January are the wettest months, characterized by torrential downpours in the afternoon. Daytime temperatures are typically around 30°C. Winter (May to September) is the dry season and has moderate daily temperatures and cool nights. Average temperatures in winter vary from 7°C in the mornings to 23°C in the afternoons (SA Explorer 2020).

Current Zoning	Eco Tourism
Economic activities	Tourism
Soil and basic geology	Soils are mostly shallow, rocky lithosols on the hillslopes. Broad-leaved tree species such as *Combretum apiculatum, C. molle, C. zeyheri* and *Strychnos cocculoides* are dominant canopy species in Pilanesberg Mountain Bushveld, with shrubs or small trees such as *Diplorhynchus condylocarpon, Elephantorrhiza burkei* and *Grewia flava* being prominent in the mid-stratum. Dominant grasses include *Chrysopogon serrulatus, Elionurus muticus, Panicum maximum* and *Themeda triandra* (Mucina & Rutherford 2006).
Hydrology	Several non-perennial streams drain towards the Elands River further to the south. Vaalkop Dam
Prior activities	Protected Area: Nature Reserve Farming activities (agriculture and livestock)
Socio Economic Environment	Tourism plays a large part in employment in the area. However, the platinum mines in the larger region (Bakenveld) contribute greatly to employment in the province.
Evaluation of Impact	An evaluation of the impact of the development on heritage resources relative to the sustainable social and economic benefits NHRA (Act No. 25 of 1999, Section 38(3d)): Positive

Table 2: Biodiversity and socio-economic environment

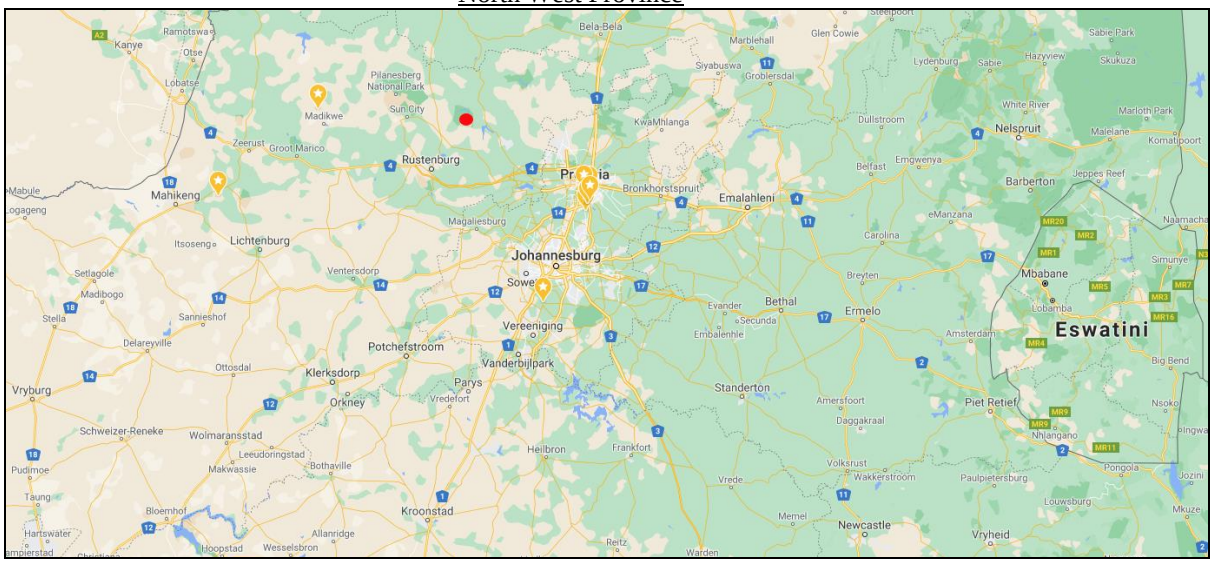

Figure 1: Regional context of the survey north east of Rustenburg (indicated by the red area)

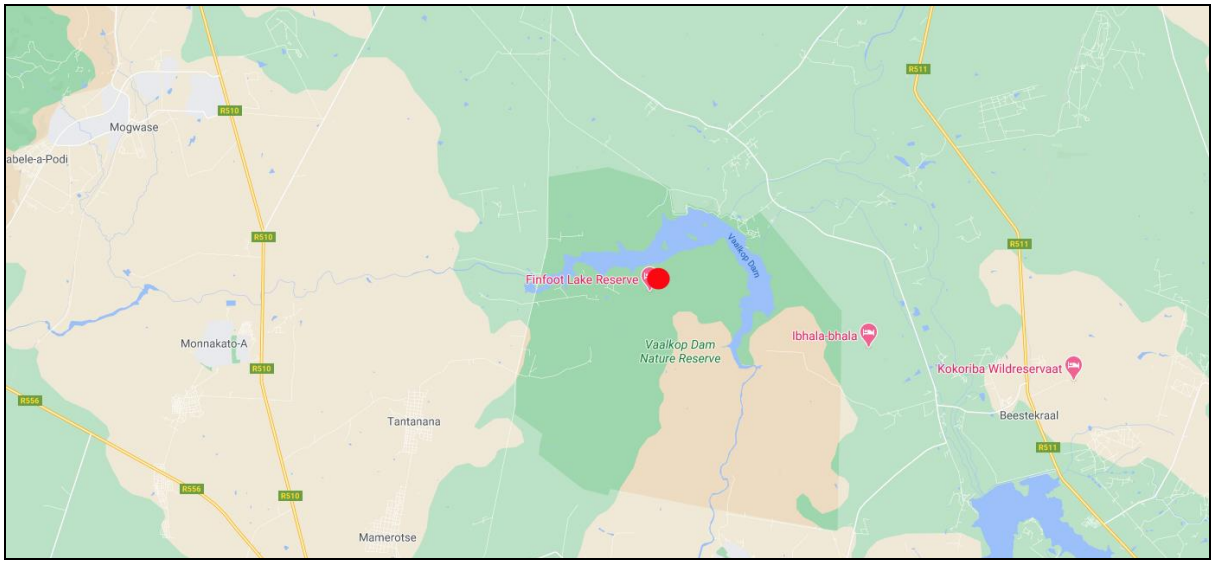

Figure 2: General location of the proposed area of development at the Vaalkop Dam

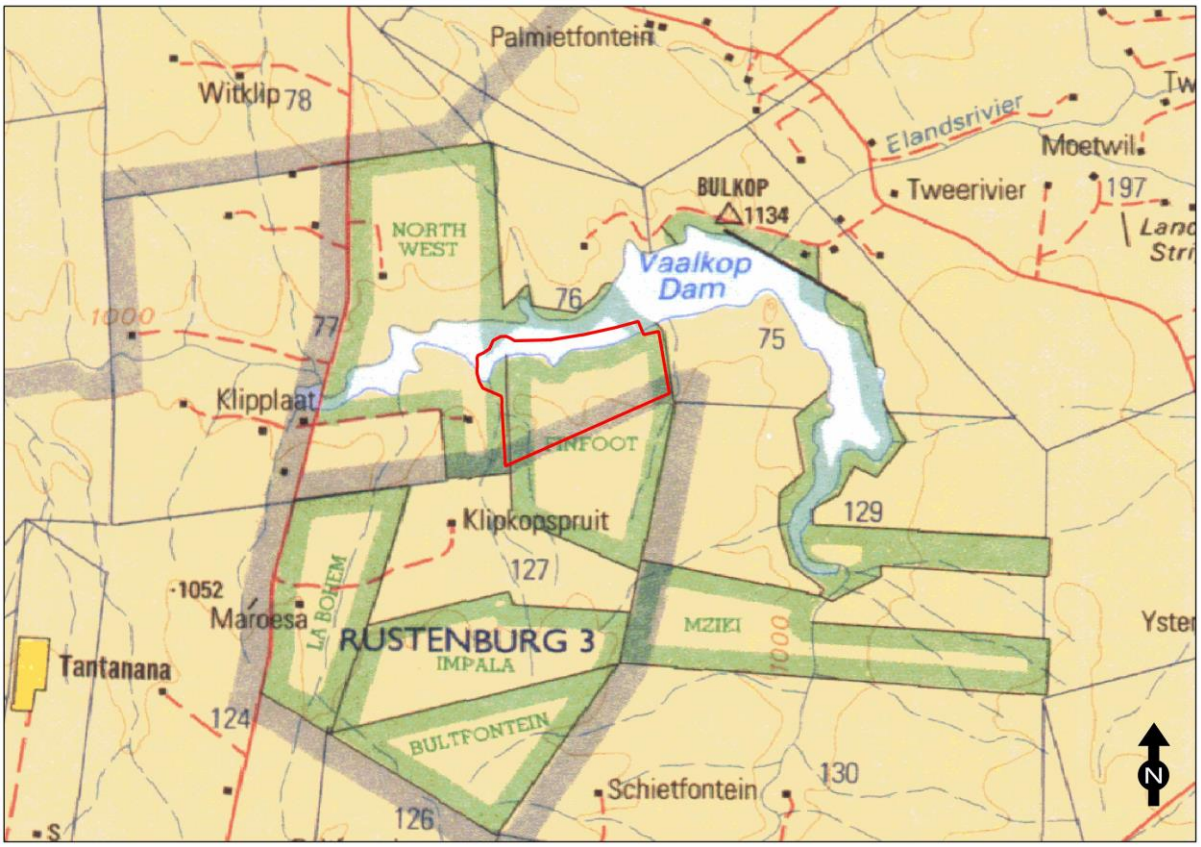

Figure 3: Local context of the survey area (1:250 000 Map 2526)

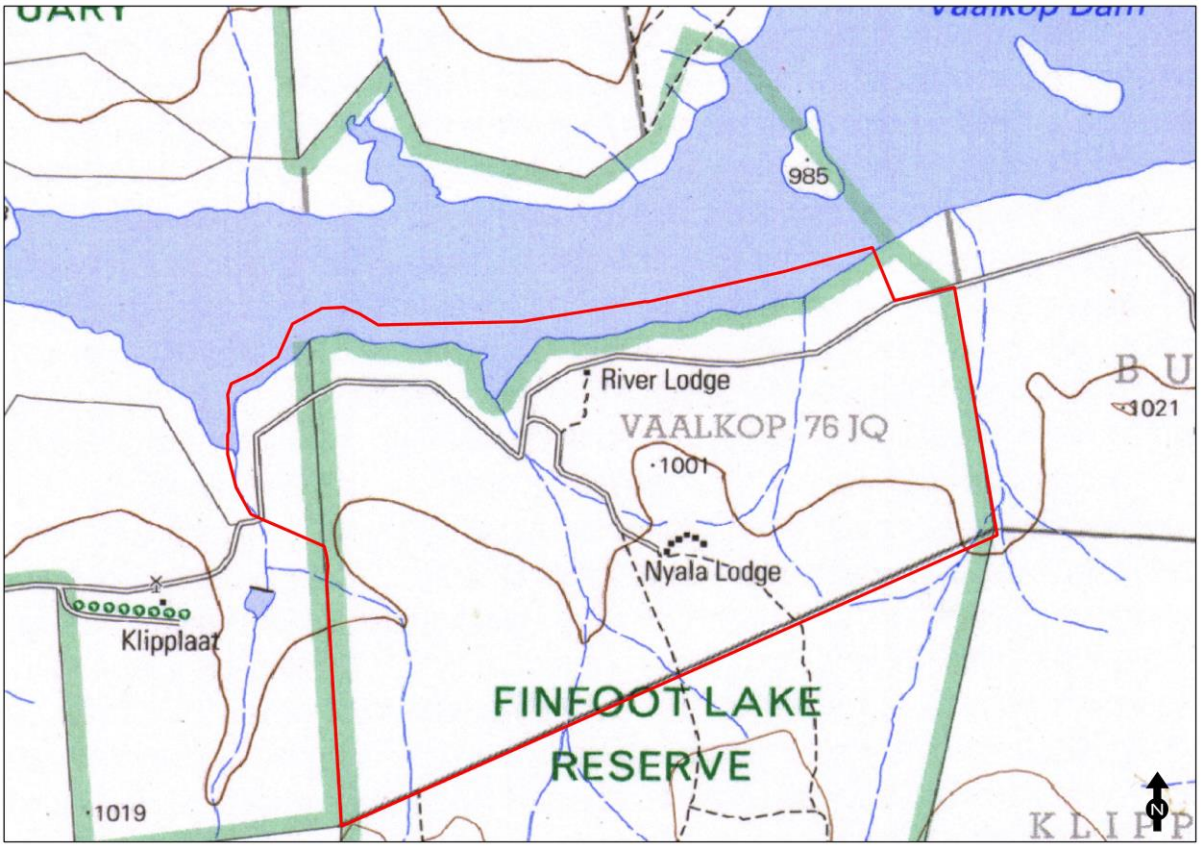

Figure 4: General location of the survey area as indicated on the 1:50 000 topographic map 2527AD

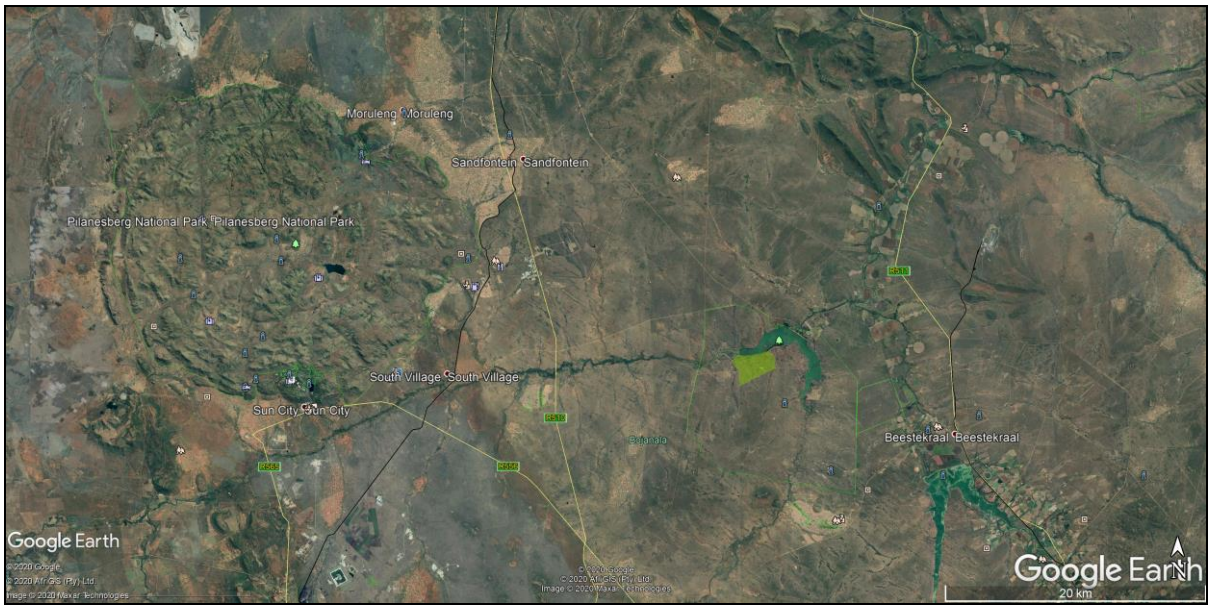

Figure 5: General location of the Finfoot Lake Reserve as indicated on Google Earth (2020)

Figure 6: Detail of the Finfoot Lake Reserve as indicated on Google Earth (2020)

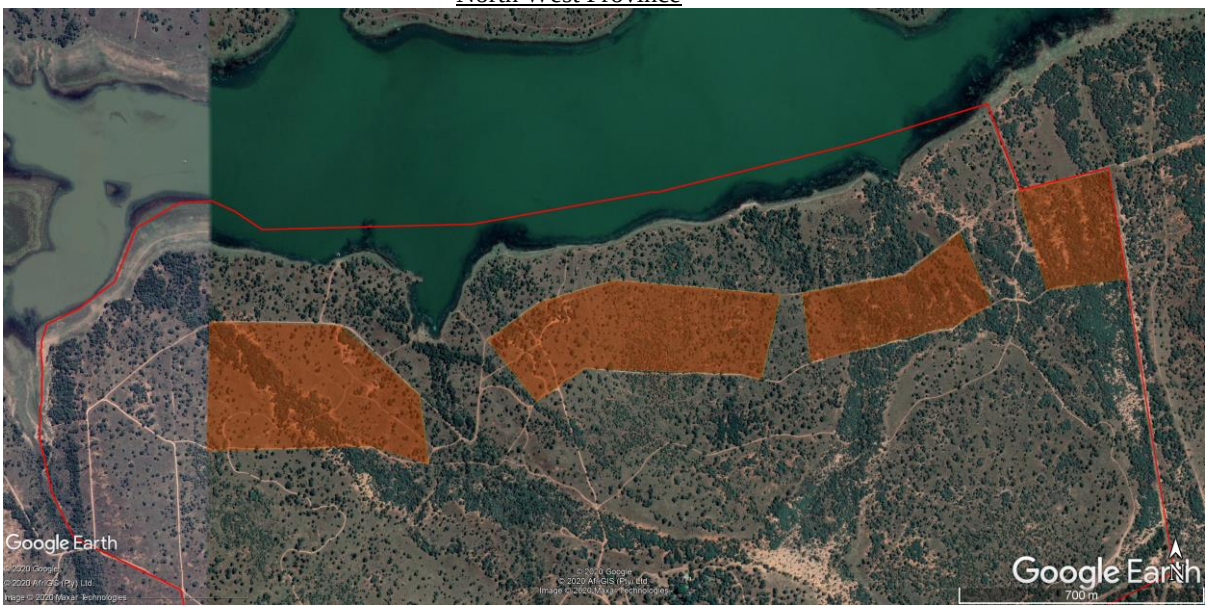

Figure 7: Detail of the survey areas within the Finfoot Lake Reserve as indicated on Google Earth (2020)

Figure 8: General view of the western section of the survey area

Figure 9: General view of the western section of the survey area

Figure 10: General view of the western section of the survey area

Figure 11: Existing infrastructure along the dam-facing section of the survey area

Figure 12: Existing infrastructure along the dam-facing section of the survey area

Figure 13: Existing infrastructure along the central section the survey area

Figure 14: General view of the western section of the survey area

Figure 15: General view of the western section of the survey area

4. Proposed Project Description

The proposed development includes eight (8) additional tented chalets (two of which have already been partly constructed) and eighteen (18) holiday homes on Finfoot Lake Reserve. All associated civil infrastructure (water, electricity, waste treatment) will be included, as well as, internal access tracks.

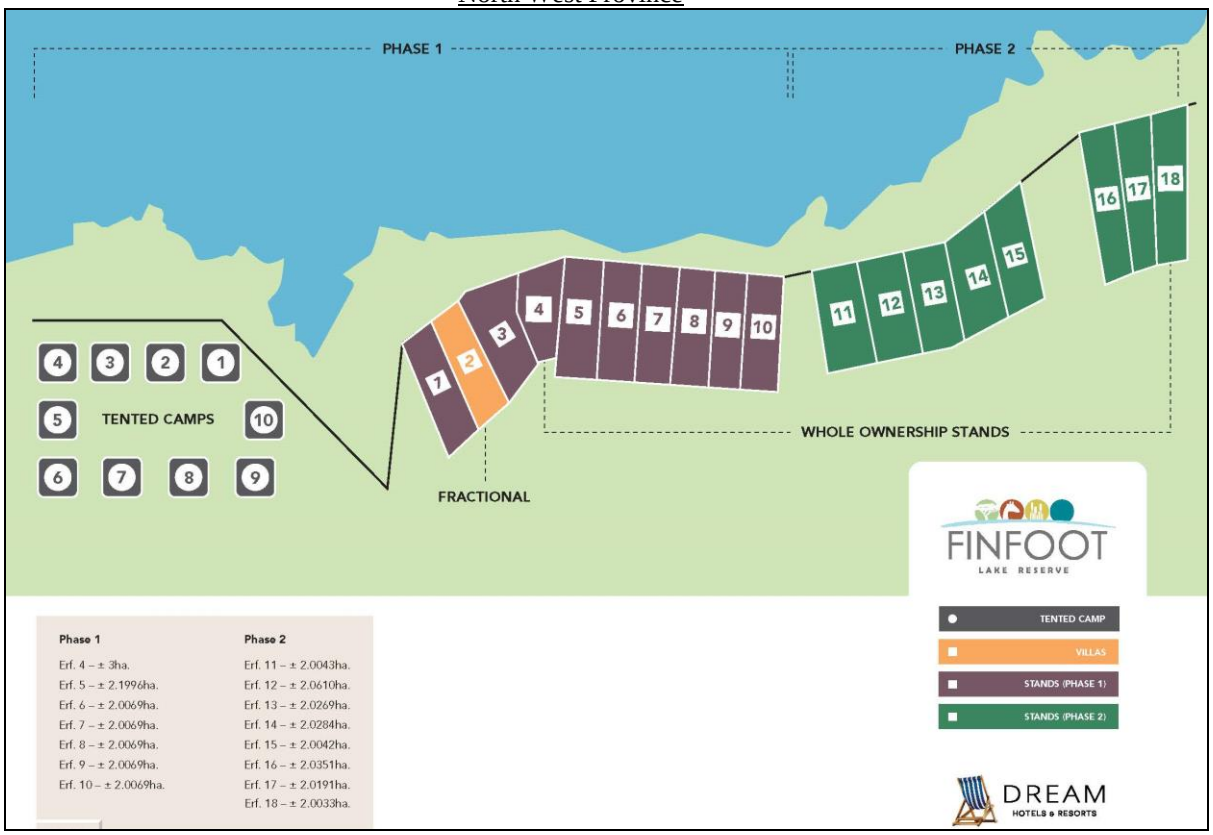

Figure 16: The position of the proposed tented chalets and holiday homes

5. Legal Framework

APPLICABLE LEGISLATION AND GUIDELINES USED TO COMPILE THE REPORT	REFERENCE APPLIED
The Constitution of the Republic of South Africa (Act No. 108 of 1996)	
The National Environmental Management Act (Act No. 107 of 1998)	Section 24 Section 28
The National Water Act (Act No. 36 of 1998)	
Air Quality Act (Act No. 39 of 2004)	
National Forests Act, Act of 84 of 1998	
The National Heritage Resources Act (Act No. 25 of 1999)	Section 38, 34, 35, 36
Conservation of Agricultural Resources Act (Act No. 85 of 1983)	-
Mineral and Petroleum Resources Development Act (Act No. 28 of 2002)	-
The National Water Act (Act No. 36 of 1998)	
Mine Health and Safety Act (Act No. 29 of 1996) (MHSA)	
Biodiversity Act (Act 10 of 2004)	
World Heritage Convention Act (Act No. 49 of 1999)	
National Environmental Management: Protected Areas Act (Act No. 57 of 2003)	
National Infrastructure Plan	
Nkomazi Local Municipality Integrated Management Plan 2016/2017	

Table 3: Legal framework

- Section 38 of the NHRA (Act No. 25 of 1999) stipulates that the following activities trigger a heritage survey:

Development criteria in terms of Section 38(1a-e) of the NHRA (Act No. 25 of 1999)	Yes/No
Construction of road, wall, powerline, pipeline, canal or other linear form of development or barrier exceeding 300m in length	No
Construction of bridge or similar structure exceeding 50m in length	No
Development exceeding 5000 m^2 in extent	Yes
Development involving three or more existing erven or subdivisions	Yes
Development involving three or more erven or divisions that have been consolidated within past five years	No
Rezoning of site exceeding 10 000 m^2	No
Any other development category, public open space, squares, parks, recreation grounds	Yes

Table 4: Activities that trigger Section 38 of the NHRA

- The 2014 EIA Regulations, as amended in April 2017 and its associated Listing Notices [Listing Notice 1 (GN R327) and Listing Notice 3 (GN R324)] specify the activities that require a Basic Assessment. The activities triggered by the proposed development include the following listed activities

Number and date of the relevant Listing Notice:	Activity Number (s) (in terms of the relevant Listing Notice):	Description of each listed activity as per the detailed project description
GN R. 327 (Listing Notice 1)	12 (ii) (c)	The development of (ii) infrastructure or structures with a physical footprint of 100 square metres or more where such a development occurs (c) within 32 metres of a watercourse.
	27	The clearance of an area of 1 hectare or more, but less than 20 hectares of indigenous vegetation.
GN R. 324 (Listing Notice 3)	6 (h) (vi)	The development of resorts, lodges, hotels, and tourism or hospitality facilities that sleeps 15 people or more in (h) North West (ii) and (vi) within 100 meters from the edge of a watercourse.
	12 (h) (vi)	The clearance of an area of 300 square meters or more of indigenous vegetation in (h) North West (ii) within critical biodiversity areas (vi) within 100 meters from the edge of a watercourse.
	14 (ii) (c); (h) (vi)	The development of (ii) infrastructure or structures with a physical footprint of 10 square meters or more where such development occurs (c) within 32 m of a watercourse in (h) North West in (iv) areas within 5 km from protected areas identified in term of NEMPAA

Table 5: Listed activities according to NEMA (Act No. 107 of 1998)

- Field rating system as recommended by SAHRA:

Field Rating	Grade	Significance	Recommended Mitigation
National Significance	Grade I	High significance	Conservation by SAHRA, national site nomination, mention any relevant international ranking. No alteration
Provincial Significance	Grade II	High significance	Conservation by provincial heritage authority, provincial site nomination. No alteration whatsoever without permit
Local Significance	Grade III-A	High significance	Conservation by local authority, no alteration whatsoever without permit from provincial heritage authority. Mitigation as part of development process not
Local Significance	Grade III-B	High significance	Conservation by local authority, no external alteration without permit from provincial heritage authority. Could
Generally Protected A	Grade IV-A	High/medium significance	Conservation by local authority. Site should be mitigated before destruction. Destruction permit required from
Generally Protected B	Grade IV-B	Medium significance	Conservation by local authority. Site should be recorded before destruction. Destruction permit required from provincial heritage authority.
Generally Protected C	Grade IV-C	Low significance	Conservation by local authority. Site has been sufficiently recorded in the Phase 1 HIA. It requires no further recording before destruction. Destruction permit

Table 6: Field rating system to determine site significance

- Heritage resources have lasting value in their own right and provide evidence of the origins of South African society and they are valuable, finite, non-renewable and irreplaceable.

- All archaeological remains, features, structures and artefacts older than 100 years and historic structures older than 60 years are protected by the relevant legislation, in this case the National Heritage Resources Act (NHRA) (Act No. 25 of 1999, Section 34 & 35). The Act makes an archaeological impact assessment as part of an EIA and EMPR mandatory (see Section 38). No archaeological artefact, assemblage or settlement (site) may be moved or destroyed without the necessary approval from the South African Heritage Resources Agency (SAHRA). Full cognisance is taken of this Act in making recommendations in this report.

- Cognisance will also be taken of the Mineral and Petroleum Resources Development Act (Act No 28 of 2002) and the National Environmental Management Act (Act No 107 of 1998) when making any recommendations.

- Human remains older than 60 years are protected by the NHRA, with reference to Section 36. Human remains that are less than 60 years old are protected by the Regulations Relating to the Management of Human Remains (GNR 363 of 22 May 2013) made in terms of the National Health Act No. 61 of 2003 as well as local Ordinances and regulations.

- With reference to the evaluation of sites, the certainty of prediction is definite, unless stated otherwise.

- The guidelines as provided by the NHRA (Act No. 25 of 1999) in Section 3, with special reference to subsection 3, and the Australian ICOMOS (International Council on Monuments and Sites) Charter (also known as the Burra Charter) are used when determining the cultural significance or other special value of archaeological or historical sites.

- A copy of this report will be submitted on SAHRIS as stipulated by the National Heritage Resources Act (NHRA) (Act No. 25 of 1999), Section 38 (especially subsection 4) and the relevant Provincial Heritage Resources Authority (PHRA).

- Note that the final decision for the approval of permits, or the removal or destruction of sites, structures and artefacts identified in this report, rests with the SAHRA (or relevant PHRA).

6. Study Approach/Methodology

Geographical information (ESRI shapefiles) on the proposed prospecting areas was supplied by NuLeaf. The most up-to-date Google Earth images and topographic maps were used to indicate the survey area. Topographic maps were sources from the Surveyor General. Please note that all maps are orientated with north facing upwards (unless stated otherwise).

The strategy during this survey was survey area specific (proposed footprint of chalets and holiday homes). The survey footprint is generally very homogeneous dominated by a very loose sandy (almost river sand) consistency. The area was surveyed by conducting a pedestrian (foot) survey.

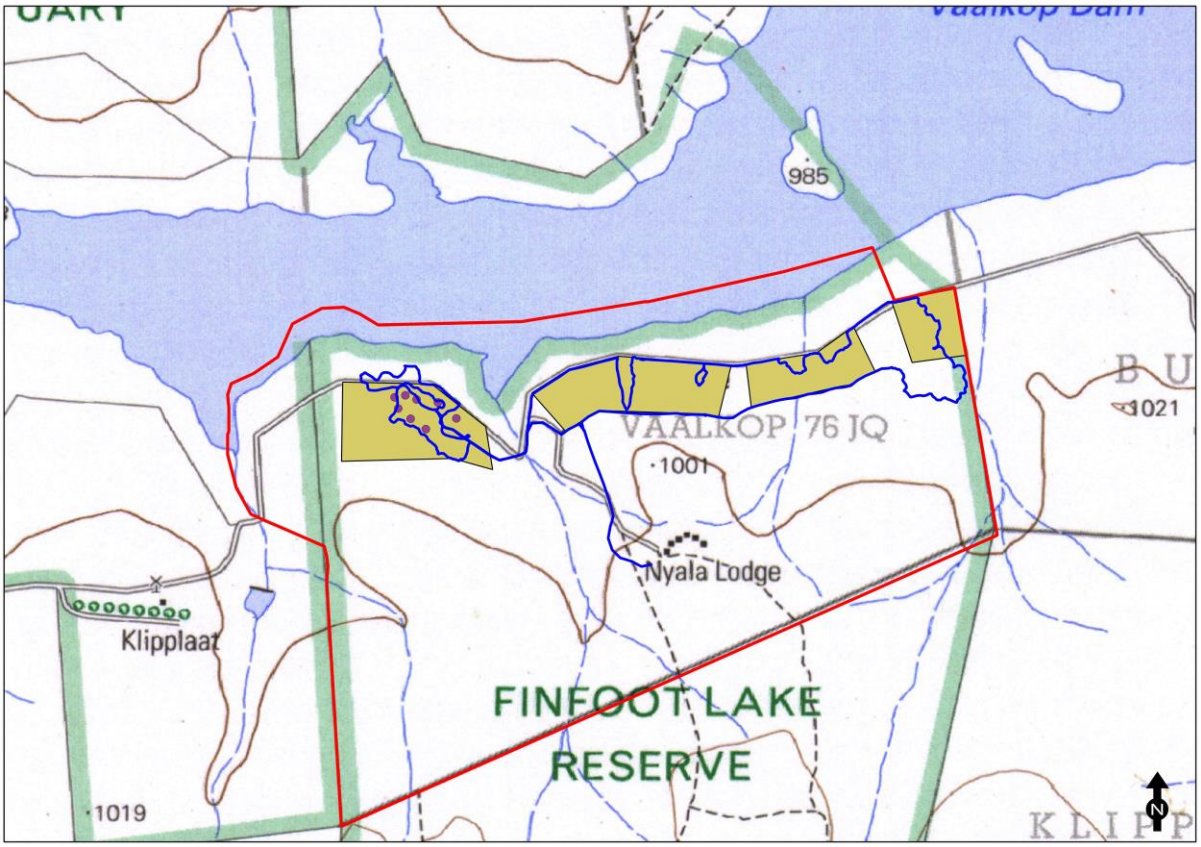

Figure 17: Recorded survey tracks for the project

6.1 Review of existing information/data

Additional information on the cultural heritage of the area was sourced from the following records:

- National Mapping Project by SAHRA (which lists heritage impact assessment reports submitted for South Africa);
- Environmental Potential Atlas (ENPAT)
- Online SAHRIS database;
- National Automated Archival Information retrieval System (NAAIRS)
- Maps and information documents supplied by the client; and
- Heritage surveys conducted in the vicinity of the survey area (published and unpublished material on the area) (Coetzee 2008, 2010, 2012; Van der Walt 2007).

A few heritage surveys have been completed in the general vicinity of the project footprint during the last few years. However, no heritage sites were recorded near the survey footprint as indicated by SAHRIS 2020.

The Pilanesberg region is well known for extensive Late Iron Age stone-walled settlements associated with early Tswana occupation. Several sites have been recorded to the east of the survey area (near Sun City) linked to early Tlokwa occupation. Towards the central and eastern sections of Pilanesberg near Mabele a Podi, the early 19th century capital of the Kgatla ba ga Kgafela have also been identified (Coetzee 2010). Although no Late Iron Age

sites were recorded near the survey footprint, they do occur in the general region (Also see Addendum 1).

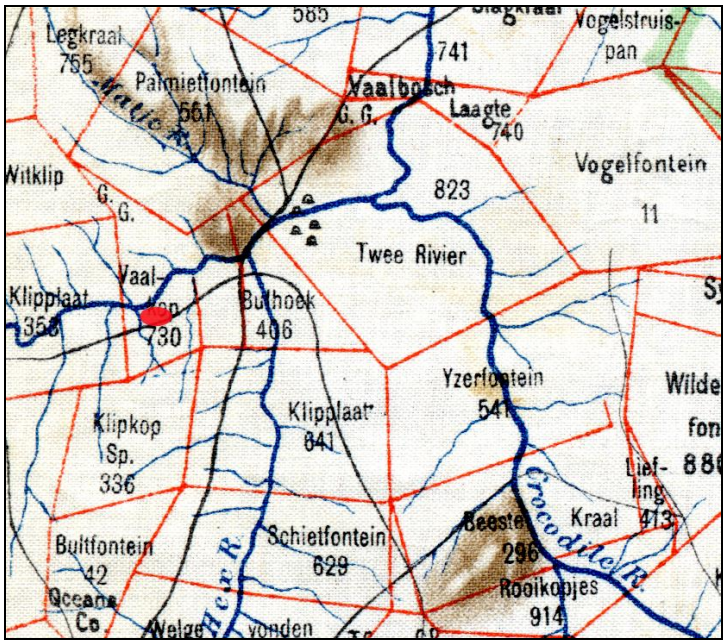

Figure 18: The survey footprint indicated on Jeppe's Map dating to 1899

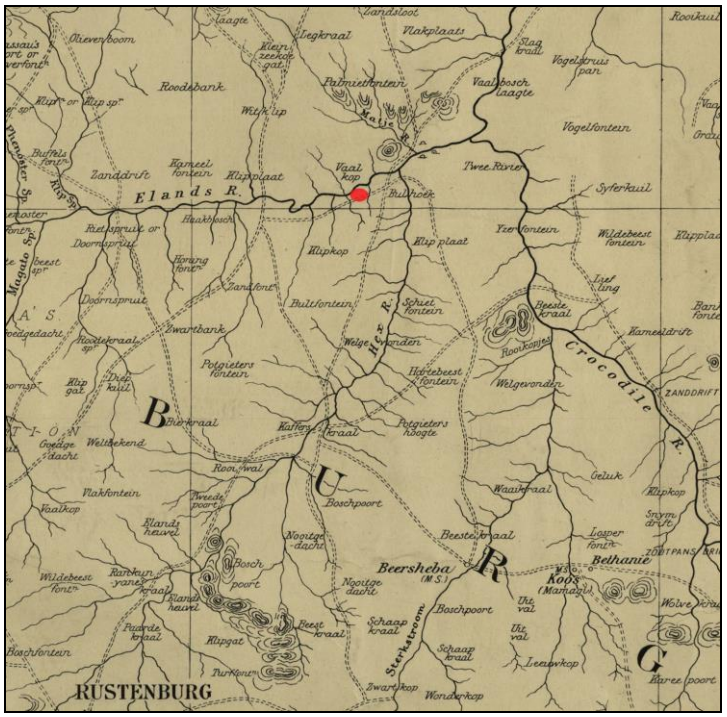

Figure 19: War Office Map indicating the probable location of the survey area in 1900

6.2 Site visits

The field surveys were conducted on 07 October 2020.

6.3 Public Consultation and Stakeholder Engagement

Public participation did not form part of the initial site screening assessment. A copy of the final EIA report will be made available for comment by interested and affected parties.

6.4 Assumptions, restrictions, gaps and limitations

No severe physical restrictions were encountered as the survey area was fairly accessible.

6.5 Methodology for assessment of potential impacts

All impacts identified during the EIA stage of the study will be classified in terms of their significance. Issues were assessed in terms of the following criteria:

- The **nature**, a description of what causes the effect, what will be affected and how it will be affected;
- The **physical exten**t, wherein it is indicated whether:
    - 1 - the impact will be limited to the site;
    - 2 - the impact will be limited to the local area;
    - 3 - the impact will be limited to the region;
    - 4 - the impact will be national; or
    - 5 - the impact will be international.
- The **duration**, wherein it is indicated whether the lifetime of the impact will be:
    - 1 - of a very short duration (0–1 years);
    - 2 - of a short duration (2-5 years);
    - 3 - of a medium-term (5–15 years);
    - 4 - of a long term (> 15 years); or
    - 5 - permanent.
- The **magnitude** of impact, quantified on a scale from 0-10, where a score is assigned:
    - 0 - small and will have no effect;
    - 2 - minor and will not result in an impact;
    - 4 - low and will cause a slight impact;
    - 6 - moderate and will result in processes continuing but in a modified way;
    - 8 - high, (processes are altered to the extent that they temporarily cease); or
    - 10 - very high and results in complete destruction of patterns and permanent cessation of processes;
- The **probability** of occurrence, which describes the likelihood of the impact actually occurring and is estimated on a scale where:
    - 1 - very improbable (probably will not happen);
    - 2 - improbable (some possibility, but low likelihood);
    - 3 - probable (distinct possibility);
    - 4 - highly probable (most likely); or
    - 5 - definite (impact will occur regardless of any prevention measures);
- The **significance**, which is determined through a synthesis of the characteristics described above (refer formula below) and can be assessed as low, medium or high;
- The **status**, which is described as either positive, negative or neutral;
    - The degree to which the impact can be reversed;
    - The degree to which the impact may cause irreplaceable loss of resources; and
    - The degree to which the impact can be mitigated.

The significance is determined by combining the criteria in the following formula:

S = (E+D+M) x P; where:
S = Significance weighting
E = Extent
D = Duration
M = Magnitude
P = Probability

Points	Significance Weighting	Discussion
< 30 points	Low	Where this impact would not have a direct influence on the decision to develop in the area.
31-60 point	Medium	Where the impact could influence the decision to develop in the area unless it is effectively mitigated.
> 60 points	High	Where the impact must have an influence on the decision process to develop in the area.

7. Description and Evaluation of Cultural Heritage Sites

Stone Age settlements

No Stone Age settlements, structures, features, assemblages or artefacts were recorded during the survey.

Iron Age settlements

No Late Iron Age artefacts, structures, features or settlements were identified during the survey.

Graveyards

No Graveyards or individual graves were identified.

Historical structures

No historical buildings or structures were recorded.

8. Management Measures

Heritage sites are fixed features in the environment, occurring within specific spatial confines. Any impact upon them is permanent and non-reversible. Those resources that cannot be avoided and that are directly impacted by the proposed development can be excavated/recorded and a management plan can be developed for future action. Those sites that are not impacted on can be written into the management plan, whence they can be avoided or cared for in the future.

8.1 Objectives

- Protection of archaeological, historical and any other site or land considered being of cultural value within the project boundary against vandalism, destruction and theft.

- The preservation and appropriate management of new discoveries in accordance with the NHRA, should these be discovered during construction activities

The following shall apply:

- Known sites should be clearly marked in order that they can be avoided during construction activities.
- The contractors and workers should be notified that archaeological sites might be exposed during the construction activities.
- Should any heritage artefacts be exposed during excavation, work on the area where the artefacts were discovered, shall cease immediately and the Environmental Control Officer shall be notified as soon as possible;
- All discoveries shall be reported immediately to a heritage practitioner so that an investigation and evaluation of the finds can be made. Acting upon advice from these specialists, the Environmental Control Officer will advise the necessary actions to be taken;
- Under no circumstances shall any artefacts be removed, destroyed or interfered with by anyone on the site; and
- Contractors and workers shall be advised of the penalties associated with the unlawful removal of cultural, historical, archaeological or palaeontological artefacts, as set out in the NHRA (Act No. 25 of 1999), Section 51(1).

8.2 Control

In order to achieve this, the following should be in place:

- A person or entity, e.g. the Environmental Control Officer, should be tasked to take responsibility for the heritage sites and should be held accountable for any damage.
- Known sites should be located and isolated, e.g. by fencing them off. All construction workers should be informed that these are no-go areas, unless accompanied by the individual or persons representing the Environmental Control Officer as identified above.
- In areas where the vegetation is threatening the heritage sites, e.g. growing trees pushing walls over, it should be removed, but only after permission for the methods proposed has been granted by SAHRA. A heritage official should be part of the team executing these measures.

9. Recommendations and Conclusions

As a result of the investigation of the survey footprint note that no archaeological (Stone Age and Iron Age) or historical settlements, structures, features, assemblages or artefacts were recorded during the survey.

It is therefore recommended, from a cultural heritage perspective, that the proposed chalets and holiday homes development and associated infrastructure may proceed.

However, please note:

Archaeological deposits usually occur below ground level. Should archaeological artefacts or skeletal material be revealed in the area during development activities, such activities should

be halted, and a university or museum notified in order for an investigation and evaluation of the find(s) to take place **(*cf*. NHRA (Act No. 25 of 1999)**, Section 36 (6)).

10. References

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Addendum 1: Archaeological and Historical Sequence

The table provides a general overview of the chronological sequence of the archaeological periods in South Africa.

PERIOD	APPROXIMATE DATE
Earlier Stone Age	More than c. 2 million years ago - c. 250 000 years ago
Middle Stone Age	c. 250 000 years ago – c. 25 000 years ago
Later Stone Age (Includes San Rock Art)	c. 25 000 years ago - c. AD 200 (up to historic times in certain areas)
Early Iron Age	c. AD 200 - c. AD 900
Middle Iron Age	c. AD 900 – c. AD 1300
Late Iron Age (Stonewalled sites)	c. AD 1300 - c. AD 1840 (c. AD 1640 - c. AD 1840)

Archaeological Context

Stone Age Sequence

Concentrations of Early Stone Age (ESA) sites are usually present on the flood-plains of perennial rivers and may date to over 2 million years ago. These ESA open sites may contain scatters of stone tools and manufacturing debris and secondly, large concentrated deposits ranging from pebble tool choppers to core tools such as handaxes and cleavers. The earliest hominins who made these stone tools, probably not always actively hunted, instead relying on the opportunistic scavenging of meat from carnivore fill sites.

Middle Stone Age (MSA) sites also occur on flood plains, but are also associated with caves and rock shelters (overhangs). Sites usually consist of large concentrations of knapped stone flakes such as scrapers, points and blades and associated manufacturing debris. Tools may have been hafted but organic materials, such as those used in hafting, seldom preserve. Limited drive-hunting activities are also associated with this period.

Sites dating to the Later Stone Age (LSA) are better preserved in rock shelters, although open sites with scatters of mainly stone tools can occur. Well-protected deposits in shelters allow for stable conditions that result in the preservation of organic materials such as wood, bone, hearths, ostrich eggshell beads and even bedding material. By using San (Bushman) ethnographic data a better understanding of this period is possible. South African rock art is also associated with the LSA.

Iron Age Sequence

In the northern regions of South Africa at least three settlement phases have been distinguished for early prehistoric agropastoralist settlements during the **Early Iron Age** (EIA). Diagnostic pottery assemblages can be used to infer group identities and to trace movements across the landscape. The first phase of the Early Iron Age, known as **Happy Rest** (named after the site where the ceramics were first identified), is representative of the Western Stream of migrations, and dates to AD 400 - AD 600. The second phase of **Diamant** is dated to AD 600 - AD 900 and was first recognized at the eponymous site of Diamant in the western Waterberg. The third phase, characterised by herringbone-decorated pottery of the **Eiland** tradition, is regarded as the final expression of the Early Iron Age (EIA) and occurs over large parts of the North West Province, Northern Province, Gauteng and Mpumalanga. This phase has been dated to about AD 900 - AD 1200. These sites are usually located on low-lying spurs close to water.

The **Late Iron Age** (LIA) settlements are characterised by sites without stone walls (Early Moloko settlements such as Icon (AD 1350 – 1500) and stone-walled sites such as Madikwe (AD 1500 – 1700) and Buispoort (AD 1700 – 1800) situated on defensive hilltops. This occupation phase has been linked to the arrival of ancestral Tswana speakers and in the northern regions of South Africa with associated sites dating between the sixteenth and seventeenth centuries AD. The terminal LIA is represented by late 18th/early 19th century settlements with multichrome Moloko pottery commonly attributed to the Sotho-Tswana. These settlements can in many instances be correlated with oral traditions on population movements during which African farming communities sought refuge in mountainous regions during the processes of disruption in the northern interior of South Africa, resulting from the so-called *difaqane* (or m*fecane*).

Sites that were identified during the survey are archaeological sites dated to the later (stone walled) phase of the Late Iron Age (c. AD 1640 - AD 1830s) also known as the Late Moloko. These sites all conform to a general settlement layout that forms part of a certain worldview. As such, the livestock enclosures are situated in the central area of a settlement. The court (kgotla) is also located in this central area and is associated with men (men are usually also buried here). The surrounding scalloped walling is where the houses are situated and is associated with women. This type of settlement layout is generally known as the Central Cattle Pattern (CCP).

Ethno-historical Context

Difaqane (mfecane)

The period of upheaval known as the Difaqane (Mfecane) had widespread implications for the northern interior of South Africa. Mzilikazi, one of the generals of King Shaka of the Zulu kingdom left KwaZulu-Natal in 1820 and took his Khumalo clan north-westward on a journey which changed the face of the South African interior. He first reached to Pedi people north of the Olifants and Steelpoort Rivers and took over their land. A year later and after a lengthy sojourn the group arrived at the slopes of the Magaliesberg Mountains in the Pretoria area in about 1827. Mzilikazi established two military kraal or capitals. The one was situated

on the Apies River called enDinaneni which was situated north-west of Pretoria on the road to Hartebeespoort Dam and enKungweni which was built along the Daspoort range of hills.

His main residence was on the south side of Meintjieskop, but he later moved to the north of the Magaliesberg Mountains, to a place named emHlahlandlela. This aggressive occupation of the land forced the local Ndebele (Ndzundza) groups to scatter and hide in mountainous areas. Later during the 1830s Mzilikazi moved further west to establish a capital at Gabeni, north of Zeerust where he subjugated various Sotho Tswana groups in the area. His power was only challenged in 1837 by a combined Boer, Tswana and Griqua force. Mzilikazi later migrated into Zimbabwe and established his next capital, Bulawayo (Rasmussen 1977).

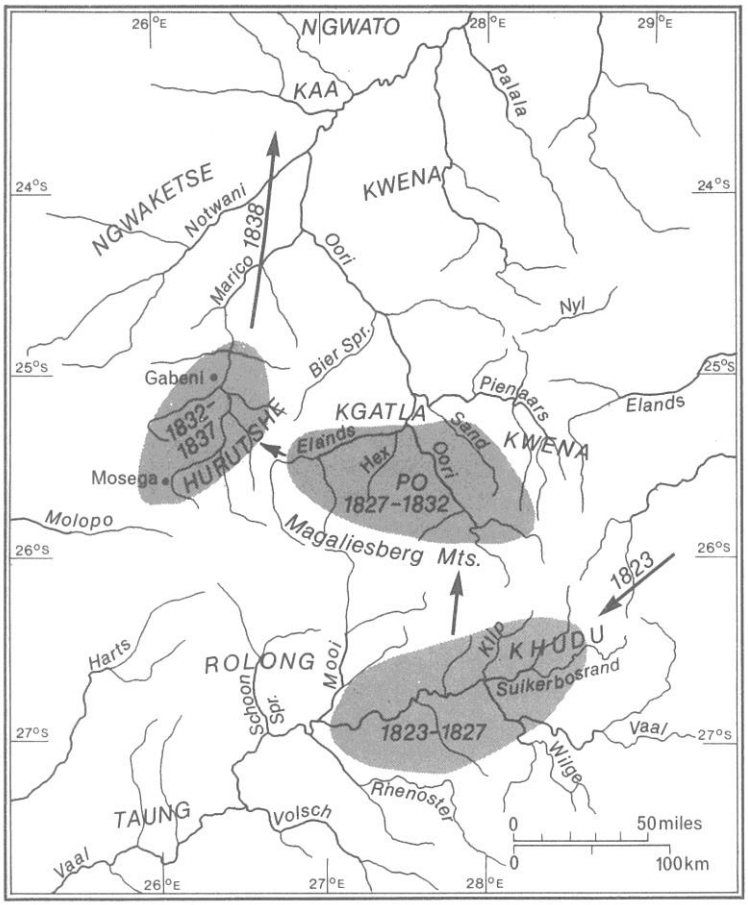

Figure 20: The location of the major spheres of influence of Mzilikazi from the early 1820s to late 1830s

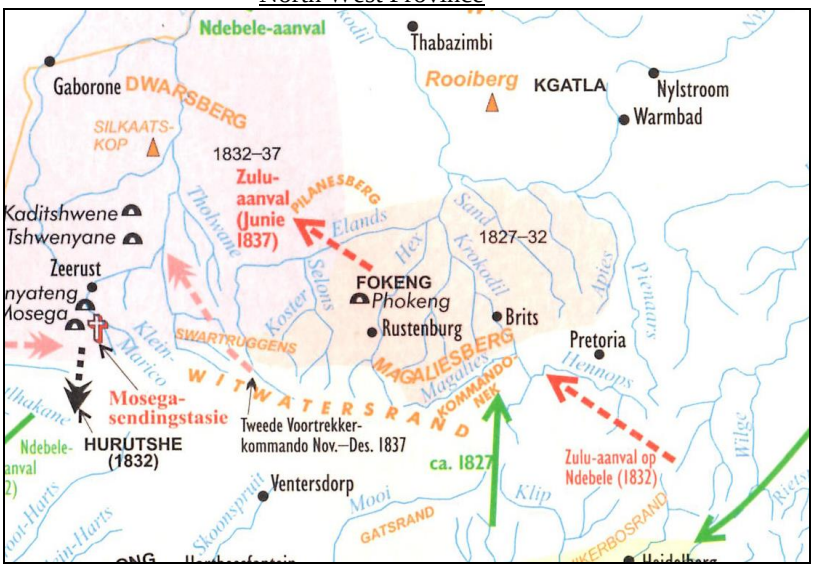

Figure 21: Movement of Mzilikazi's wariors relative to the survey area north of Brits (after Bergh 1998)

The Pilanesberg Sequence

Pilanesberg is an eroded circular volcanic intrusion into the low-lying Bushveld Complex. The result is a mountainous region which stands in stark contrast to the surrounding open plains, creating a unique enclave for occupation and utilisation. Rivers flowing from the centre to the periphery of Pilanesberg exacerbated by extensive surface movement caused by dykes and faults have resulted in valleys which provide accessible pathways into the centre of the structure. Access to Pilanesberg was controlled by positioning extensive settlements at the periphery of Pilanesberg near the entrance to these pathway-like valleys.

According to oral tradition the Bakgatla baga Kgafela separated from the Mosetlha at Momusweng near the Hammanskraal district (north-east of Pretoria) around AD 1700. As one of five Bakgatla groups, this separation heralded in a period of independence and extensive sojourn for the Kgafela people. The Kgafela settled at various locales on their north-western journey towards the Crocodile (Odi) River and eventually arrived in the Pilanesberg area between AD 1700 and AD 1750. Chief Pilane, ruler of the Kgafela people (after whom the Pilanesberg Mountains was named) reigned between AD 1825 and 1859.

However, on their arrival in the region the Batlhako were already settled in the area and ruled the territory between the Crocodile River and Pilanesberg. Oral history links several stone-walled settlements, at Pilwe mountain south-east of Pilanesberg, with earlier Batlhako occupation. Further to the south the Bafokeng ruled over the region north of Rustenburg with the northern border demarcated by the Elands River (south of the Pilanesberg).

Another group that settled in the area is the Batlokwa, who lived more towards the south west of Pilanesberg Mountains. The Batlokwa are, according to their own tradition, yet another offshoot of the Bakgatla (Legassick 1978:104; Schapera 1952:10). As discussed above Tabane and Mathulare had five sons, namely: Diale (or Liale), Khetsi (Kgetsi), Matsibolo, Khoali (Khoadi or Kgwadi) and Mosia. Of relevance to this discussion is Kgwadi (the fourth son) who separated from the main group, then ruled by Matlaisane (who became the Bakgatla

baga Motšha) with his followers (in *circa* AD 1570) who eventually constituted the Batlokwa (See 2.1.1). Moreover, David-Frederic Ellenberger relates that the Batlokwa also eventually split into two separate sections. Kgwadi remained in the north but Molatodi (Molatudi), the son of Molefe (reigned five generations after Kgwadi), seceded in *circa* AD 1690 and moved to the south (Wakkerstroom). Molatodi's southern Batlokwa split again during his grandson, Tsotetsi's reign as a group under Motonosi (great grandson of Molefe) seceded in *circa* AD 1735. *Kgosi* Tsotetsi's *morafe* became known as the Batlokwa Bamokgalong (senior in status) and *kgosi* Motonosi's *morafe* as the Batlokwa Bamokotleng (Bamokgotlong; junior in status, they became the Mantatisi of Sekonyela). A third independent division was known as the Malakeng (Makalakeng) (Breutz 1989:380; Ellenberger 1912:40). Although D.F. Ellenberger dealt exclusively with the southern Batlokwa, an account of the northern section under Kgwadi was later recorded by his son Vivien Ellenberger (1939) and subsequently also by Paul-Lenert Breutz (1989). This account is of direct relevance to the settlement sequence of the Pilanesberg District.

As stated, Molefe reigned five generations after Kgwadi in *circa* AD 1670. Although not supported by Ellenberger (1939:199 (Genealogical Table)), Breutz (1989:377-380) lists Morare as Molefe's father who settled at Ramoriana (Nkgagolwe, on the farm Waterval 267) near the Dwarsberg Mountains. This is significant as the area will remain under Batlokwa influence until today. The Batlokwa then moved to the Matlapeng (Matlapynsberg) Mountains where Morare was buried at Moreteletse (on the farm Syferfontein) west of Pilanesberg. Molefe succeeded and moved first to Mabodi Masweu (White) Mountains and then to Tlôkwe (Thete, Ditsopotla, also Potchefstroom) on the Mooi River, where he died. Initiated by the secession of various sections, as discussed above, the Batlokwa started to disperse first in a northern and southern division and secondly, into various smaller groups. Ultimately it seems that Tswaane (Tswane, son of Sebedi (Sebili) son of Molefe) emerged as leader (*circa* AD 1720) of the northern Batlokwa who remained in North West Province (Ellenberger 1939:166, 170; Breutz 1989:383).

According to Ellenberger (1939:170) Tswane was succeeded by Marakadu (ruled from *circa* AD 1730), although Breutz (1989:383) inserts another two rulers between Tswane and Marakadu, namely Kgawadi and Molefe (who probably settled at Nkwe). It is during Marakadu's reign that the antbear (*thakadu*) was accepted as the new totem of the northern Batlokwa. After Marakadu's death, his son Mosima Tsele (ruled from *circa* AD 1740) trekked north of the Magaliesberg Mountains, probably along the Crocodile River and settled at Bôte (near Houwater, Pilanesberg District) near Phokeng (Rustenburg District) where he died.

Interestingly, Breutz (1989:383) presents Mosima Tsele as two individuals, namely Mosima (who settled at Dite) and Tsele (Tsela) who ruled at Mankwe (cited as being situated on the farm Zwaarverdiend 234JP adjoining Selons Location to the east which is on th farm Grootwagendrift 233JP, south of Pilwe Mountain). An alternative version has it that *kgosi* Mosima Tsile settled on the farm Houwater (in Pilanesbreg) and later at Bopitiko on the farm Doornhoek 910JQ, near the Elands (Kgetleng) River. Monageng (ruled from *circa* AD 1750) and Matlhabane (Matlabane) (ruled from *circa* AD 1760) reigned successively at Mankwe. During Matlhabane's reign a dispute arose with the Bafokeng (of Patsa) which prompted Matlhabane to cross the Elands River and settle on its western bank at Itlhôlanôga (possibly located on the western bank of the Leitlholenoga River on the farm Doornhoek 910JQ) in

circa AD 1770, in the southern periphery of Pilanesberg, where he died. He was succeeded by Mokgwa a Matlhabane (ruled from *circa* AD 1770), who also died there. His son Taukobong (Taukubong) started his rule at Mankwe River (a tributary of the Elands River where the Bakgatla baga Kgafêla presently reside) sometime during AD 1780, and later moved his capital further south-west to Maruping at Pilwe Mountain (on the farms Zwartkoppies 212JP and Zwaarverdiend 234JP, eleven kilometres from Mankwe River), south-west of Pilanesberg. Taukubung also fought and defeated the Batlhako ba Leêma near Pilwe Mountain (Breutz 1953:198,201; Ellenberger 1939:166,170).

Taukubung had four sons, namely Makaba, Molefe, Thekiso and Mokgatle. Makaba was betrothed to Nkae, a Bahurutshe royal, but died before the marriage could be effected. Molefe fathered heirs in the name of Makaba, called Bogatsu, Phiri and Semêla. After Taukubung's death a succession dispute arose, sometime after AD 1800, between Thekiso and Mokgatle, which prompted Molefe to break away and act as regent until Bogatsu came of age. This section later became known as the Batlokwa ba Bogatsu. Bogatsu ruled from *circa* AD 1810 and settled west of Pilwe ('Piloe') mountain at Marothodi (on the farm Vlakfontein 207JP), where he died in *circa* AD 1815 (alternatively between *circa* AD 1815 to AD 1820). During his reign the Batlokwa, with the aid of the Kgafêla, fought and defeated the Bafokeng under Moseletsane (Moseletsana). The Batlokwa ba Bogatsu later split into the Batlokwa ba Gaberone, Batlokwa ba Sedumedi and Batlokwa ba Kgosi. Bogatsu's brother Phiri settled south of Pilwe Mountain after a dispute with Molefe. His other brother Semêla later took his people to live among the Bakgatla at Odi I. Kgosi settled at Tshwene-Tshwene and later at Ga-Molatedi. Note that when Bogatsu succeeded Molefe he retained his own *morafe* and after his bout with Phiri moved to Kolontwane (further east along the Elands River, on the farm Grootfontein) (Breutz 1953:199,202,363; 1989:384,385; Ellenberger 1939:166,172,173; Schapera 1952:20; TNAD 1968:40).

During the reign of Bogatsu's son Kgosi (ruled from *circa* AD 1820) the Batlokwa, while still living at Marothodi, were attacked and defeated by the Bakwena Modimosana Bammatau. Kgosi was killed during the battle in *circa* AD 1823, which resulted in a succession dispute between his four sons. Leshage (Kgosi's son from a junior house) seceded in *circa* AD 1823 with a following, but as a result of fights with Sebestwane of the Bafokeng, were chased as far north as Serowe in Botswana where they stole cattle from the Bamangwato, who retaliated by defeating them and recapturing their cattle. The remaining division under Bashe (Bashwe; another of Kgosi's son from a junior house) (acting ruler from *circa* AD 1825) first re-occupied Marothodi but later relocated to Letlhakeng (on the farm Putsfontein, west of Mabieskraal and north of Matlapeng (Matlapynsberg) Mountains) where he was killed by Mzilikazi in AD 1835. Matlapeng (the rightful successor of Kgosi) came of age and moved from Letlhakeng to rule at Motlhatseng (on the farm Rietfontein on the western periphery of the Matlapeng Mountains), where his sons Gaborone and Sedumendi (from the first house), were born (Breutz 1989:385; Ellenberger 1939:166,174,176,178,179). It is significant that the Matlapeng Mountains feature prominently in Batlokwa oral traditions as *kgosi* Morare (an earlier ruler) was buried at Moreteletse, an erstwhile Batlokwa capital, south of the Matlapeng Mountains.

The above discussion clearly highlights the movement and role of various Batlokwa *merafe* in the southern, south-western and western reaches of the Pilanesberg. However, their close association through kinship and social interconnectedness with the Bakgatla baga Kgafêla

seems only to surface during periods of conflict. This thread of association continued throughout the 19th century as the Batlokwa, during the reign of Matlapeng, assisted the Kgafêla during their war with the Bakwena in *circa* AD 1875 (Schapera 1942:12).

The areas to the southwest of Pilanesberg, such as Pilwe and the Matlapeng Mountains, were not only extensively occupied by the Batlokwa, but were also inhabited by two Batlhako *merafe* (as stated above) who settled and controlled the area before the arrival of both the Bakgatla and Batlokwa.

South African War (1899 – 1902)

A battle, which turned into a siege, was fought on the farm Brakfontein during the South African War. The battlefield is located just north of the Eland River, but probably situated further east of the survey area (see Map 3).

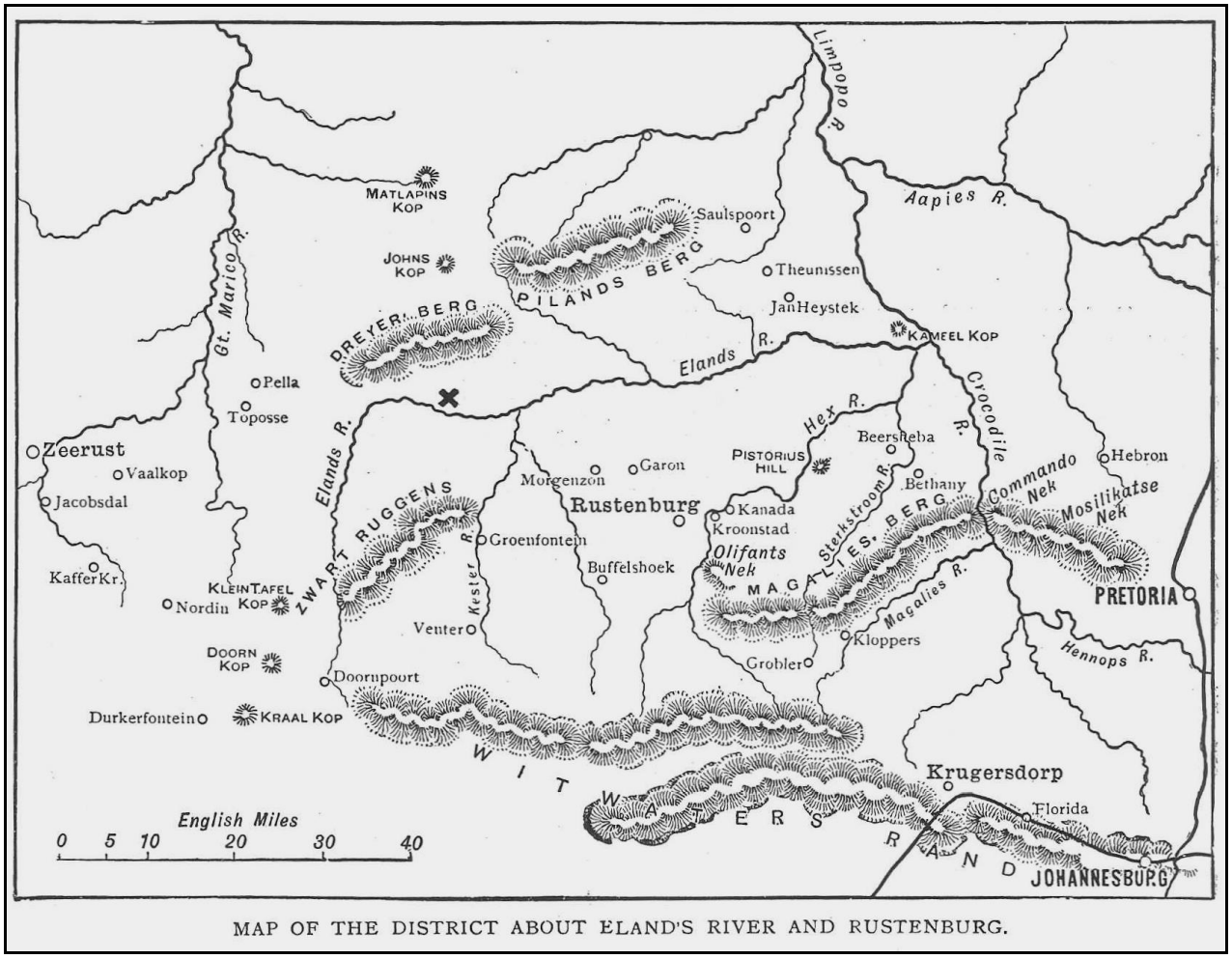

Figure 22: Location of the Battle of Eland River

Roughly 550 Australian and Rhodesian colonials fought courageously for 10 days in August 1900 against a superior Boer force under General JH de la Rey and General HL Lemmer on the Elands River. The Boer commando's had them pinned down and they were eventually saved by Lord Kitchener (see Map 4) (Coulthard-Clark 1998:83-84).

The battle indicates the possibility of other such skirmish sites associated with the Second Anglo-Boer (South African) War in the survey area.

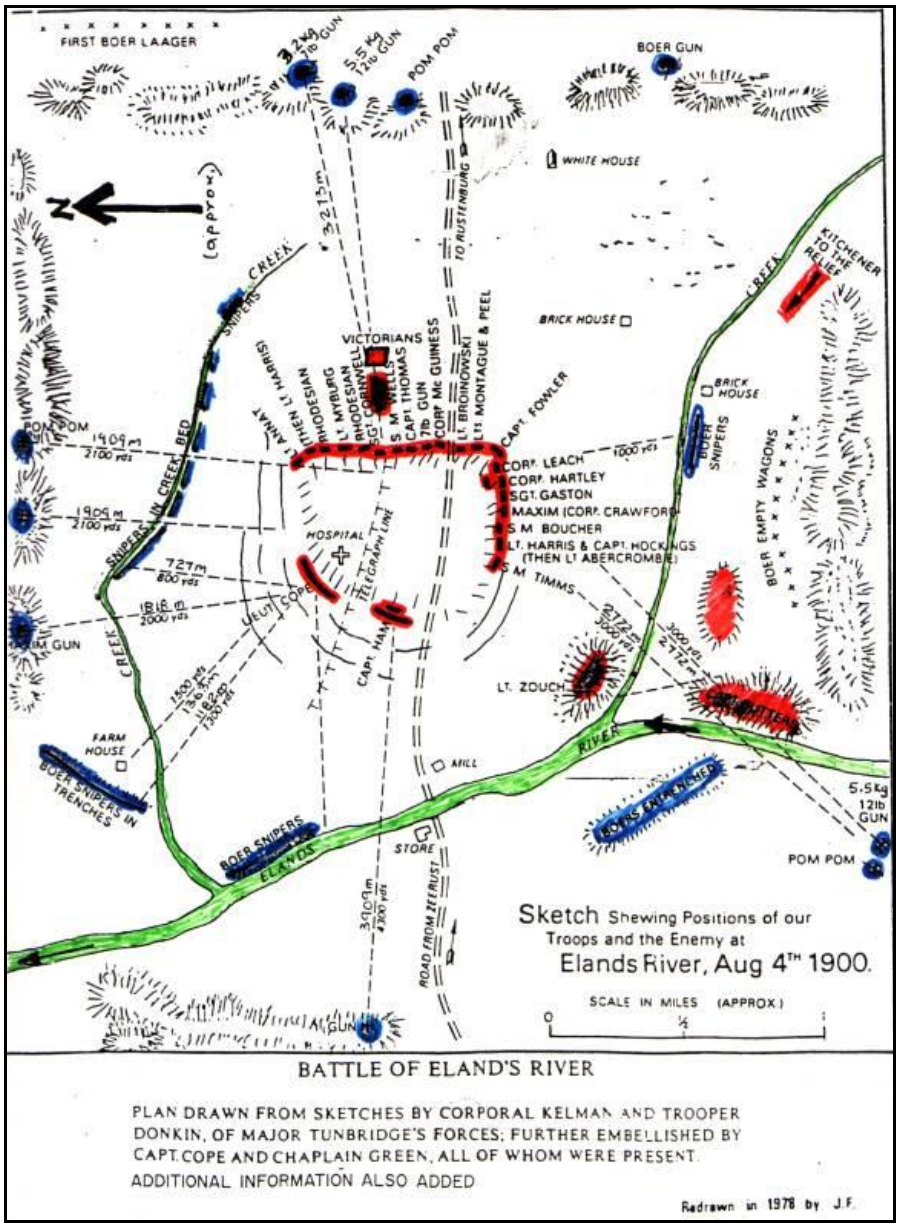

Figure 23: Location and events of the Battle of Eland River