

Phase 1 Archaeological Survey on Portions 2, 4, 5 and the Remaining
Extent of the farm, Waterval, 65 JU in respect of a proposed township
development to be known as White River Extension 112 in White River,
Mpumalanga Province.

Compiled by:



For Enpact Environmental Consultants

Surveyor: Mr JP Celliers

29 July, 2015

I, Jean-Pierre Celliers as duly authorised representative of Kudzala Antiquity CC, hereby confirm my independence as a specialist and declare that neither I nor the Kudzala Antiquity CC have any interest, be it business, financial, personal or other, in any proposed activity, application or appeal in respect of which the client was appointed as Environmental Assessment practitioner, other than fair remuneration for work performed on this project.

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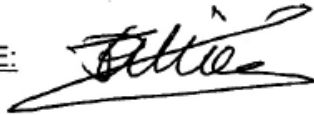
A handwritten signature in black ink, appearing to read 'J. Celliers', written over a horizontal line.

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Executive summary

Site name and location: Portions 2, 4 and 5 of the farm Waterval 65 JU located near the town White River, Mpumalanga Province.

Purpose of the study: An Archaeological and historic study in order to identify heritage resources on the farm Waterval 65 JU in respect of a proposed township development. Extent 101 ha.

1:50 000 Topographical Map: 2531 AC (1984)

EIA Consultant: Henwood Environmental Consultants

Client:

Heritage Consultant: Kudzala Antiquity CC.

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Report date: 29 July 2015

Description and findings:

An Archaeological resource survey was undertaken by Kudzala Antiquity CC in respect of a proposed township development on portions 2, 4 and 5 of the farm Waterval 65 JU near the town White River in Mpumalanga Province. The study was done with the aim of identifying sites which are of heritage significance on the property and assessing their current preservation condition, significance and possible impact of the proposed development. This forms part of legislative requirements as appears in section 38 of the National Heritage Resources act (25 of 1999) and the NEMA (17 of 1998).

The survey was conducted on foot and with the aid of a motor vehicle in an effort to locate archaeological remains and historic features. A desktop archival study in combination with social consultation formed the basis on which sites were identified, located and assessed.

A total of ten (10) sites were located or recorded and documented. An historic farmstead, canal and weir structure (**sites WWA 3, WWA 5 and 6**) is rated with medium significance (**GPB; table 5.1, 5.2, 5.3, 5.4**). The farm stead is probably older than 60 years but has been vandalised, recording of the building before destruction is recommended. The historic water canal and weir are located outside the proposed development area in the White River south of the southern boundary. The remaining sites (**WWA 1, 2, 4**) comprise of the ruined remains of farm worker's dwellings and associated infrastructure and rated as low significance (**GPC; table 5.1, 5.2, 5.3, 5.4**). A number of sites were recorded for orientation and observation purposes (**sites WASO 1-3**) which provide insight into the characteristics and nature of the surveyed area.

Disclaimer: *Although all possible care is taken to identify all sites of cultural importance during the investigation of study areas, it is always possible that hidden or sub-surface sites could be overlooked during the study. Kudzala Antiquity CC will not be held liable for such oversights or for costs incurred as a result of such oversights.*

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- The results of the project;
- The technology described in any report
- Recommendations delivered to the Client.

1. Introduction

1.1. Terms of reference

Kudzala Antiquity CC was commissioned to conduct an Archaeological and Heritage resources survey on portions 2, 4, and 5 of the farm Waterval 65 JU near the town White River in Mpumalanga Province. The survey was conducted in respect of the potential impact on archaeological and heritage resources which may occur during the establishment of a township to be known as White River Extension 112 (see detailed maps in Appendix C). The survey was conducted for Henwood Environmental Consultants.

1.2. Legislative Framework

The National Heritage Resources Act (Act 25, 1999) and the NEMA (National Environmental Management Act No. 107 of 1998) requires of individuals (engineers, farmers, mines and industry) or institutions to have specialist heritage impact assessment studies undertaken whenever any development activities are planned. This report is the result of an archaeological and heritage scoping study in accordance with the requirements as set out in Section 38 (3) of the National Heritage Resources Act (25 of 1999) in an effort to ensure that heritage features or sites that qualify as part of the national estate are properly managed and not damaged or destroyed.

The study aims to address the following objectives:

- Analysis of heritage issues;
- Assess the cultural significance of identified places including archaeological sites and features, buildings and structures, graves and burial grounds within a specific historic context;
- Identifying the need for more research;
- Surveying and mapping of identified places including archaeological sites and features, buildings and structures, graves and burial grounds;
- A preliminary assessment of the feasibility of the proposed development or construction from a heritage perspective;
- Identifying the need for alternatives when necessary;
- Recommending mitigation measures to address any negative impacts on archaeological and heritage resources.

Heritage resources considered to be part of the national estate include those that are of Archaeological, Cultural or historical significance or have other special value to the present community or future generations.

The national estate may include:

- places, buildings, structures and equipment of cultural significance;
- places to which oral traditions are attached or which are associated with living heritage;
- historical settlements and townscapes;
- landscapes and natural features of cultural significance;
- geological sites of scientific or cultural importance;
- archaeological and paleontological sites;
- graves and burial grounds including:
 - (i) ancestral graves;
 - (ii) royal graves and graves of traditional leaders;
 - (iii) graves of victims of conflict;
 - (iv) graves of individuals designated by the Minister by notice in the *Gazette*;
 - (v) historical graves and cemeteries; and other human remains which are not covered in terms of the Human Tissue Act, 1983 (Act No. 65 of 1983);
- sites of significance relating to slavery in South Africa;
- movable objects including:
 - (i) objects recovered from the soil or waters of South Africa, including archaeological and paleontological objects and material, meteorites and rare geological specimens;
 - (ii) objects to which oral traditions are attached or which are associated with living heritage
 - (iii) ethnographic art and objects;
 - (iv) military objects
 - (v) objects of decorative or fine art;
 - (vi) objects of scientific or technological interest; and
 - (vii) 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 of the National Archives of South Africa Act, 1996 (Act No. 43 of 1996).

Cultural resources are unique and non-renewable physical phenomena (of natural occurrence or made by humans) that can be associated with human (cultural) activities (Van Vollenhoven 1995:3).

These would be any man-made structure, tool, object of art or waste that was left behind on or beneath the soil surface by historic or pre-historic communities. These remains, when studied in their original context by archaeologists, are interpreted in an attempt to understand, identify and reconstruct the activities and lifestyles of past communities. When these items are disturbed from their original context, any meaningful information they possess is lost, therefore it is important to locate and identify such remains before construction or development activities commence.

1.3. Approach

An AIA (Archaeological Impact Assessment) consists of three phases, this document deals with the first phase. This (phase 1) investigation is aimed at getting an overview of cultural resources in a given area, thereby assessing the possible impact a proposed development may have on these resources. The *purpose* of the archaeological study is to establish the whereabouts and nature of cultural heritage sites should they occur on the surveyed area. This includes settlements, structures and artefacts which have value for an individual or group of people in terms of historical, archaeological, architectural and human (cultural) development.

The *aim* of this study is to locate and identify such objects or places in order to assess whether they are of significance and warrant further investigation or protection. This is done by means of foot surveys, a desktop or detailed archival study as well as a study of the results of previous archaeological work in the area.

When the archaeologist encounters a situation where the planned project will lead to the destruction or alteration of an archaeological site, a second phase in the survey is normally recommended. During a phase two investigation mitigation measures are put in place and detailed investigation into the nature and origin of the cultural material is undertaken. Often at this stage, archaeological excavation is carried out in order to document and preserve the cultural heritage.

Phase three consists of the compiling of a management plan for the safeguarding, conservation, interpretation and utilization of cultural resources (Van Vollenhoven, 2002).

2. Description of surveyed area

The study area falls within the Mbombela Local Municipality, Ehlanzeni District, Mpumalanga Province. The survey was carried out on approximately 101 ha of indigenous Sour Bushveld and historic agricultural land (mixed use) near the historic town of White River. Limiting factors include the dense nature of the grass and bush which are often hard to access and also limits the visibility of archaeological and heritage sites and features.

Veld type: The vegetation forms part of the Savanna Biome and classed as Legogote Sour Bushveld comprising gently to moderately sloping upper pediment slopes with dense woodland including many medium to large shrubs. Short thicket occurs on less rocky sites. Exposed granite outcrops have low vegetation cover (Mucina and Rutherford, 2009).

Geology: Most of the area is underlain by gneiss and migmatite of the Nelspruit Suite but the southern part occurs on the potassium-poor rocks of the Kaap Valley Tonalite. Soils are sandy and gravelly and well drained (Mucina and Rutherford, 2009).

3. Methodology

A desktop archival study followed by a physical survey of the proposed development area was conducted. This was done to assess whether graves or features of historical or archaeological value exist on the property. Limiting factors include the dense nature of the grass and bush which are often hard to access and also limits the visibility of archaeological and heritage sites and features.

Historical maps: Historical maps obtained during the archival search were scrutinized and features that were regarded as important in terms of heritage value were identified and if they were located within the boundaries of the project area they were physically visited in an effort to determine whether they:

- (i) still exist
- (ii) assess their current condition, and
- (iii) significance

SAHRA (South African Heritage Resources Agency) and the relevant legislation (Act 25 of 1999, National Heritage Resources Act) require that the following components be included in an Archaeological impact assessment:

- Archaeology
- Shipwrecks
- Battlefields
- Graves
- Structures older than 60 years
- Living heritage
- Historical settlements
- Landscapes
- Geological sites
- Paleontological sites and objects

All the above-mentioned heritage components are addressed in this report, except shipwrecks, geological sites and paleontological sites and objects.

3.1. Desktop study

The purpose of the desktop study is to compile as much information as possible on the heritage resources of the area. This helps to provide an historical context for located sites. Sources used for this study include published and unpublished documents, archival material and maps. Information obtained from the following institutions or individuals were consulted:

- Lydenburg Museum, Lydenburg
- Published and unpublished archaeological reports and articles
- Published and unpublished historical reports and articles
- Archival documents from the National Archives in Pretoria
- Historical maps
- SAHRIS database

3.1.1. Previous Archaeological studies in the area

A number of Archaeological Impact Assessments (AIA) has been done in the vicinity of the proposed development area.

An archaeological impact assessment conducted in 2012 by JP Celliers on the farm The Fountains 58 JU, just outside White River, located three graveyards, a historically significant bell tower and some farm sheds and worker's accommodation.

The same author recorded historically insignificant built structures in August 2012 on Coltshill Extension 2 of the farm White River 64 JU. They comprised abandoned sports and storage facilities.

In the year 2005 Matakoma Heritage Consultants discovered a small graveyard on portion 6 of the farm Nooitgedacht 62 JU near White River.

Murimbika (2006) completed a heritage survey in respect of the proposed Paardekop Eskom Powerline and substation near White River. They recorded no archaeological or heritage features during the survey.

3.2. Significance of sites

The South African Heritage Resources Agency (SAHRA) formulated guidelines for the conservation of all cultural resources and therefore also divided such sites into three main categories. These categories might be seen as guidelines that suggest the extent of protection a given site might receive. They include sites or features of local (Grade 3) provincial (Grade 2) national (Grade 1) significance, grades of local significance and generally protected sites with a number of degrees of significance.

For practical purposes the surveyor uses his own classification for sites or features and divides them into three groups, those of low or no significance, those of medium significance, those of high significance (**Also see table 5.2. Significance rating guidelines for sites**).

Values used to assign significance to a site include:

- **Types of significance**

The site's scientific, aesthetic and historic significance or a combination of these is established.

- **Degrees of significance**

The archaeological or historic site's rarity and representative value is considered. The condition of the site is also an important consideration.

- **Spheres of significance**

Sites are categorized as being significant in the international, national, provincial, regional or local context. Significance of a site for a specific community is also taken into consideration.

It should be noted that to arrive at the specific allocation of significance of a site or feature, the specialist considers the following:

- Historic context
- Archaeological context or scientific value
- Social value
- Aesthetic value
- Research value

More specific criteria used by the specialist in order to allocate value or significance to a site include:

- The unique nature of a site
- The integrity of the archaeological deposit
- The wider historic, archaeological and geographic context of the site
- The location of the site in relation to other similar sites or features
- The depth of the archaeological deposit (when it can be determined or is known)
- The preservation condition of the site
- Quality of the archaeological or historic material of the site
- Quantity of sites and site features

In short, archaeological and historic sites containing data which may significantly enhance the knowledge that archaeologists currently have about our cultural heritage should be considered highly valuable. In all instances these sites should be preserved and not damaged during construction

activities. When development activities do however jeopardize the future of such a site, a second and third phase in the Cultural Resource Management (CRM) process is normally advised which entails the excavation or rescue excavation of cultural material along with a management plan to be drafted for the preservation of the site or sites.

Graves are considered very sensitive sites and should never under any circumstances be jeopardized by development activities. Graves and burial grounds are incorporated in the *National Heritage Resources Act* under *section 36* and in all instances where graves are found by the surveyor, the recommendation would be to steer clear of these areas. If this is not possible or if construction activities have for some reason damaged graves, specialized consultants are normally contacted to aid in the process of exhumation and re-interment of the human remains.

4. History and Archaeology

4.1. Historic period

4.1.1. Early History

The first inhabitants of the eastern Lowveld were probably the San or Bushmen. They were a nomadic people who lived together in small family groups and relied on hunting and gathering of food for survival. Evidence of their existence is to be found in numerous rock shelters throughout the Lowveld where some of their rock paintings are still visible. A number of these shelters have been documented in the Nelspruit area (Bornman, 1995; Schoonraad in Barnard, 1975). It has been argued that the red ochre source for these paintings is to be found at Dumaneni, near Malelane (Bornman, 1995).

Two Late-Holocene (Later Stone Age) sites near Hazyview in the Kruger National Park date to the last 2500 years and are associated with pottery and microlith stone tools (Bergh, 1998: 95). This is contemporary to typical hunter-gatherer lifestyle and may also have been sites frequented by San.

It was only later that Bantu-speaking tribes moved into this area from the northern parts of Southern Africa and settled here. This period is referred to as the Early Iron Age (AD 200-1500 approx.). These were presumably Sotho-Tswana herder groups.

Various historians and ethnographers describe that the Lowveld was frequented by Swazi and Sotho-Tswana groups during historic times i.e. Late Iron Age times during the period AD 1500-1800. (Barnard, 1975; Bergh, 1998; Bornman, 2002; Herbst, 1985; Myburgh, 1949).

Old trade routes was well established before the period of Colonial expansion and these routes mainly existed as a direct consequence of metallurgy and mining for iron, tin, copper and some gold to make weapons, agricultural equipment and ornaments (Bergh, 1998:103). The earliest signs of iron mining and working in the old Transvaal dates to approximately 300 AD and copper mining and working in Southern Africa may have been practiced as early as 620 AD (Bergh, 1998:103).

These people were responsible for the establishment of large centrums like Monomotapa the Zimbabwe Complex and also the famed Mapungubwe in the Limpopo valley. At around 900 AD Arab merchants established a trade post at Sofala (Beira). Since the start of the 11th century, these Arabs had trade relations with the people of Zimbabwe. Textiles, porcelain and glass beads were traded for gold, ivory and other minerals.

An ancient trade route passed close-by the current Nelspruit and started from Delagoabay in a westward direction through the Lowveld towards the gold fields of Lydenburg, by passing through Malalapoort, the Nkhomati and Crocodile Rivers to Skipberg in the current Kruger National Park close-by the place where Pretoriuskop Rest Camp is located. From here onwards there were two possible routes up the mountains to reach the goldfields. The first one passed by Spitskop (Sabie) and from there on to Lydenburg. The second passed south of the “Devils Knuckles” to Lydenburg. The Voortrekkers used this route in 1845 when making the wagon route between Ohrigstad and Delagoabay (Berg, 1998: 104). There were also several linking routes to existing main routes, one of which started from Sabie or Lydenburg to the route which linked Delagoabay to the Soutpansberg via Pilgrim’s Rest. It is also believed that a footpath existed at the foothills of the (Transvaal) Drakensberg which led around the mountain to link again with a major route alongside the Olifants River (Bergh, 1998:104).

In 1721 Dutch sailors reached Delagoa Bay and settled there for nine years, during this time they launched a number of expeditions inland. During August 1723 lieutenant Jan Steffler and 17 men launched the first of these expeditions but they were ambushed by natives shortly after crossing the Lebombo Mountains. Exactly where they crossed the mountains is uncertain but it is possible that they were actually in northern Swaziland when they were attacked. Steffler succumbed as a result of this ambush and his followers returned to Delagoa Bay (Bergh, 1998:116).

A second attempt to create an inland route took place two years later in June 1725 when Francois de Cuiper and 34 men departed from Delagoa Bay and travelled in a north-western direction. They reached Gomondwano in the current Kruger National Park where they were also attacked by a local tribe. This resulted in them also having to return to Delagoa Bay. Although this attempt was also not successful, it is seen as the first European intrusion into this northern area (Bergh, 1998:116).

In the (Eastern Transvaal) Lowveld a sub-group of the Northern Sotho, known as the eastern Sotho, were present nearby the eastern escarpment. They are known as the Pulana, Pai (emaMbayi) and Kutswe, these people moved from northern Swaziland further northwards when Swazi expanded into this area during the *mfecane* (Bergh, 1998:107-108). One of the recorded events relates to the attack of the Ndwandwe under Zwibe on the Pedi in 1825 (Bergh, 1998:114-115). This seems to have started from the Lowveld in the region of the Pretoriuskop area towards Steelpoort.

During the nineteenth century the Lowveld area of Mpumalanga was extensively settled by both Bantu and European groups that migrated into this area. Bantu migration was mainly as a result of political upheaval during the *mfecane* (“the crushing” in Nguni). This was a period of bloody tribal and faction

struggles in present-day KwaZulu Natal and on the Highveld area, which occurred around the early 1820's until the late 1830's (Bergh, 1998). It came about in response to heightened competition for land and trade, and caused population groups like gun-carrying Griquas and Shaka's Zulus to attack other tribes (Giliomee, 2003). During this period, a movement of Swazi people took place to the areas north and northwest of Swaziland. As a result reports indicate that the Swazi were living in the Lowveld area by the 1840's (Bergh, 1998).

Before the *mfecane* period (1820's) small farmer groups including the Pai and Pulana resided in the mountainous area surrounding Barberton and Nelspruit. The conflict during the *mfecane*, when the Swazi under Mswati II raided these smaller groups, resulted in scattered settlement of those who managed to escape the Swazi onslaught. Evidence of these scattered settlements are sometimes found in the form of small stone walled enclosures in and around Barberton, Nelspruit and onwards to the Schoemanskloof.

According to Bornman:

“Mswati continued his attacks on the emaMbayi (Sotho) tribes living south of the Ngwenya (Crocodile) and the Mlambongwane (Kaa) Rivers, who fled into the present day Kruger National Park and into the mountainous area of Mphakeni (Crocodile Gorge) and the Three Sisters Mountains. But as soon as the Swazi army had retreated, the emaMbayi returned to their old haunts and reoccupied them.

Again the Swazi regiments drove the emaMbayi from this area. The battle, which took place near the creek, today known as Low's Creek, west of the Three Sisters Mountain, was so fierce that the creek ran red with the blood of the slain. After the battle the Swazi named the creek: the red (or blood) river (Mantibovu) and the Three Sisters they named Mbayiyane, meaning the 'mountain of the emaMbayi'.

Mswati proceeded systematically to settle this area with members of his own family and trusted commoners after they killed Tsibeni and evicted the remnants of his people who fled to an area near Legogote, where they are still living today” (Bornman, 1995). This is very near the town of White River.

Archaeological evidence recorded in *Prehistory of the Transvaal: a record of human activity* does however refer to the presence of terraced settlement and a set of “unusual group of walls” that most likely indicates the presence of a small Iron Age agricultural village in the vicinity of the area in which the farm is located in Mpumalanga (Mason, 1962). Information cited in the *Geskiedenisatlas van Suid-Afrika. Die vier noordelike provinsies* confirms the presence of Late Iron Age settlements in the area between ca 1000 and 1800 (Bergh, 1998).

4.1.2. The Voortrekkers

The Groot Trek of the Voortrekkers started with the Tregardt- van Rensburg trek in 1835. The two men met where Tregardt and his followers crossed the Orange River at Buffelsvlei (Aliwal North). Here van

Rensburg joined the trek northwards. On August 23, 1837 the Tregardt trek left for Delagoabay from the Soutpansberg. They travelled eastwards alongside the Olifants River to the eastern foothills of the Drakensberg. From here they travelled through the Lowveld and the current Kruger National Park where they eventually crossed the Lebombo mountains in March 1838. They reached the Fortification at Lourenço Marques on 13 April 1838 (Bergh, 1998:124-125).

Permanent European (Voortrekker) settlement of the eastern areas of Mpumalanga can be traced back to a commission under the leadership of A.H. (Hendrik) Potgieter who negotiated with the Portuguese Governor at Delagoabaai in 1844 for land. It was agreed that these settlers could settle in an area that was four days journey from the east coast of Africa between the 10° and 26° south latitudes. Voortrekkers started migrating into the area in 1845. Andries-Ohrigstad was the first town established in this area in July 1845 after the Voortrekkers successfully negotiated for land with the Pedi Chief Sekwati. Farms were given out as far west as the Olifants River. The western boundary was not officially defined but at a Volksraad meeting in 1849 it was decided that the Elands River would be the boundary between the districts of Potchefstroom and Lydenburg as this eastern portion of the Transvaal was then known (Bergh, 1998).

Due to internal strife and differences between the various Voortrekker groups that settled in the broader Transvaal region, the settlers in the Ohrigstad area now governed from the town of Lydenburg decided to secede from the Transvaal Republic in 1856. The Republic of Lydenburg laid claim to a large area that included not only the land originally obtained from the Pedi Chief Sekwati in 1849 but also other areas of land negotiated for from the Swazis. The Republic of Lydenburg was a vast area and stretched from the northern Strydpoort mountains to Wakkerstroom in the south and Bronkhortsspruit in the west to the Swazi border and the Lebombo mountains east.

As can be expected, the migration of Europeans into the north would have a significant impact on the indigenous people who populated the land. This was also the case in Mpumalanga. In 1839 Mswati succeeded Sobhuza (also known as Somhlomo) as king of the Swazi. Threatened by the ambitions of his half brothers, including Malambule, who had support from the Zulu king Mpande, he turned to the Ohrigstad Boers for protection. He claimed that the land that the Boers had settled on was Swazi property. The Commandant General of the Ohrigstad settlement, Andries Hendrik Potgieter, responded that the land was ceded to him by the Pedi leader Sekwati, in return for protection of the Pedi from Swazi attacks (Giliomee, 2003).

However, in reaction to the increasingly authoritarian way in which Potgieter conducted affairs at Ohrigstad, the Volksraad of Ohrigstad saw Mswati's offer as a means to obtain more respectable title deeds for the property (Bonner, 1978). According to a sales contract set up between the Afrikaners and the Swazi people on 25 July 1846, the whites were the rightful owners of the land that had its southern border at the Crocodile River, which stretched out in a westerly direction up to Elandspruit; of which the eastern border was where the Crocodile and Komati rivers joined and then extended up to Delagoa bay

in the north (Van Rooyen, 1951). The Europeans bought the land for a 100 heads of cattle (Huyser). The area where the farm Roodewal 251 JT is located formed part of the land that was ceded to the Europeans (Boers) by the Swazis. Apparently, Swazi people could stay on the land only if the farmers asked permission from the South African Republic for them to be able to do so (Huyser, p 87).

In 1858 the Zuid-Afrikaansche Republiek (ZAR) was officially established, and mainly consisted of all the other territories settled by the Boers in the Transvaal region. This development led to a boundary dispute between the ZAR and the Republic of Lydenburg regarding the western boundary of the latter. Nevertheless in 1860 the Republic of Lydenburg united with the ZAR as the District of Lydenburg and ceded the land west of the Olifants River as part of the unification agreement to the District of Pretoria (Bergh, 1998).

4.1.3. Historic maps of the area and the establishment White River

Since the mid 1800's up until the present, South Africa has been divided and re-divided into various different districts. Since 1945, Nelspruit, White River and the surrounding farm areas formed part of the Lydenburg district. This remained the case up until 1902, when the Barberton district was proclaimed. The farm area fell under the jurisdiction of the White River ward in the Barberton district. In 1930 the Nelspruit district was proclaimed and in 1977 the area was reclassified as the Nelspruit Magisterial District.

In 1952 a brief history of the town of White River was compiled by several local inhabitants of the town for the Van Riebeeck Festival. This source although not academically written is one of the few sources that give a more detailed outline of the establishment of the town. The latest contribution is that of well-known Lowveld resident and historian, Mr Hans Bornman. He recently published a book "White River Photo Album" which has a comprehensive historic overview of the establishment of the town and its related agricultural history and also features rare photographs of historic White River.

The sources state that the area was probably called "Manzimhlope" by the native people who lived in the area (possibly Mbayi), which translates into White River. Hunters were some of the first white people to arrive in the area in the 1800's. The discovery of gold at Sabie, Pelgrimsrust and Barberton led to a general influx of white people into the area on a more permanent basis. By the late 1800's several white families resided in the area. Surnames mentioned are: Wolhunter, De Beer, Steenkamp, Strydom, Maritz, Stoltz, Koekemoer, Zietsman, Van Rooyen, Schalkwyk, Broodryk, Bronkors, Stander and Lloyd

After the Anglo-Boer War (1899-1902), Lord Alfred Milner, was responsible for rebuilding the war torn country and it was part of his policy to establish settlements for former British soldiers who had fought during the war. White River was chosen as one of the places for such a settlement to be established. A pamphlet was distributed in Great Britain to inform settlers of the area's potential. The land was apparently suitable for the planting of bananas, citrus, the winter planting of vegetables and the

establishment of forestry. It would also make excellent grazing land for cattle, sheep and goats. £60 000 was spend on the establishment of the settlement, which included the digging of a 16 mile canal from the White River for the irrigation of the farm White River. A town area was laid out and the first two government buildings built were a Police Office and a school.

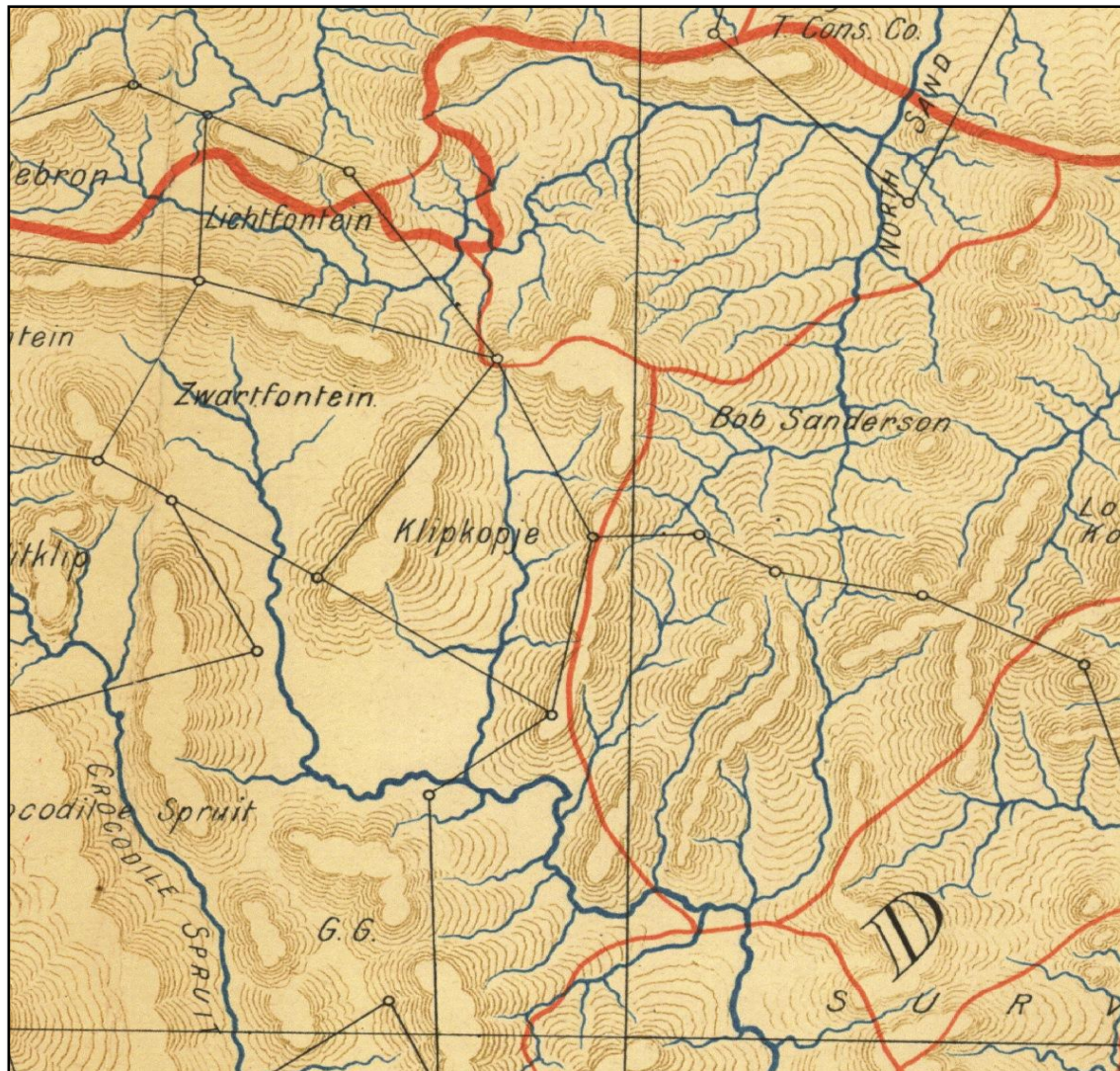


Fig. 4.1. Imperial Map of South Africa: De Kaap 1900. White River is not yet indicated on the map.

Small plots or farms of about 100 acres each were given to the immigrants. The White River's Farmers' Association was established in 1905. By 1907 it was clear that the government had not kept to the promises made as stated in the pamphlet. Some of the issues raised by the immigrants were the fact that the land was mostly not suitable for winter planting of vegetables due to frost damage. That they were suffering the loss of sheep and goats and wanted the plots re-measured so that cattle farming could be pursued. They also felt that the price they paid for the land was too high. Another issue was the fact that they were told a journey to Nelspruit would take them an hour and a half to complete, but the journey actually took them 3 to 4 hours due to the poor condition of the roads. By 1911 most of the

immigrants had apparently left the area and at a meeting of remaining residents it was stated: "That the government be requested to appoint a Commission to go into the White River ground settlement now practically vacant and going to ruin".

In March 1905 the settlers established the White River Farmers' Association with 21 members. The Chairman was Mr Tom Lawrence and CE Davies secretary and also the school principal. At this stage there was the school and associated buildings as well as a Police Station and a business concern named McDonald on the corner of Kruger Park and Theo Kleynhans Streets with a Hotel next door which belonged to a Cooke (Bornman, 2015). A few houses were added later. The settlers planted tobacco, maize and vegetables which were sold on a market every Saturday. There were also stock farmers in the region who regularly came to the market as well as those settlers who did not sell wares on the market but came to collect their weekly allowances (Bornman, 2015).



Fig. 4.2. Early settlers constructing an 25km water canal from the White River to irrigate their farms (taken from Bornman, 2015).

After a few years the government decided it was time the settlers stood on their own feet and in May 1907 the allowances were stopped. This led to a large scale exodus by 1909 when the settlers had to renew their contracts. By 1911 only one of the original settlers was left, a man by the name of MacDonald, who had a citrus orchard known as Mac's Grove (see map figure 4.3). He grew Washington navels imported from Riverside, California in the United States from which most of the orange trees in the White River Valley were grafted (Bornman, 2015).

In 1914 the farm White River and the canal also known as the Milner Settlement, was sold to a private syndicate and they re-named the settlement the White River Estates (Bornman, 2015). In 1916 White River Estates became a private company and the famous H.T. Glynn, founder of Sabie, was elected Chairman and the directors were Clem Victor Merriman, Exley Millar, Rev. Maurice Ponsonby and Lieut-Colonel WGF Barnard DSO.

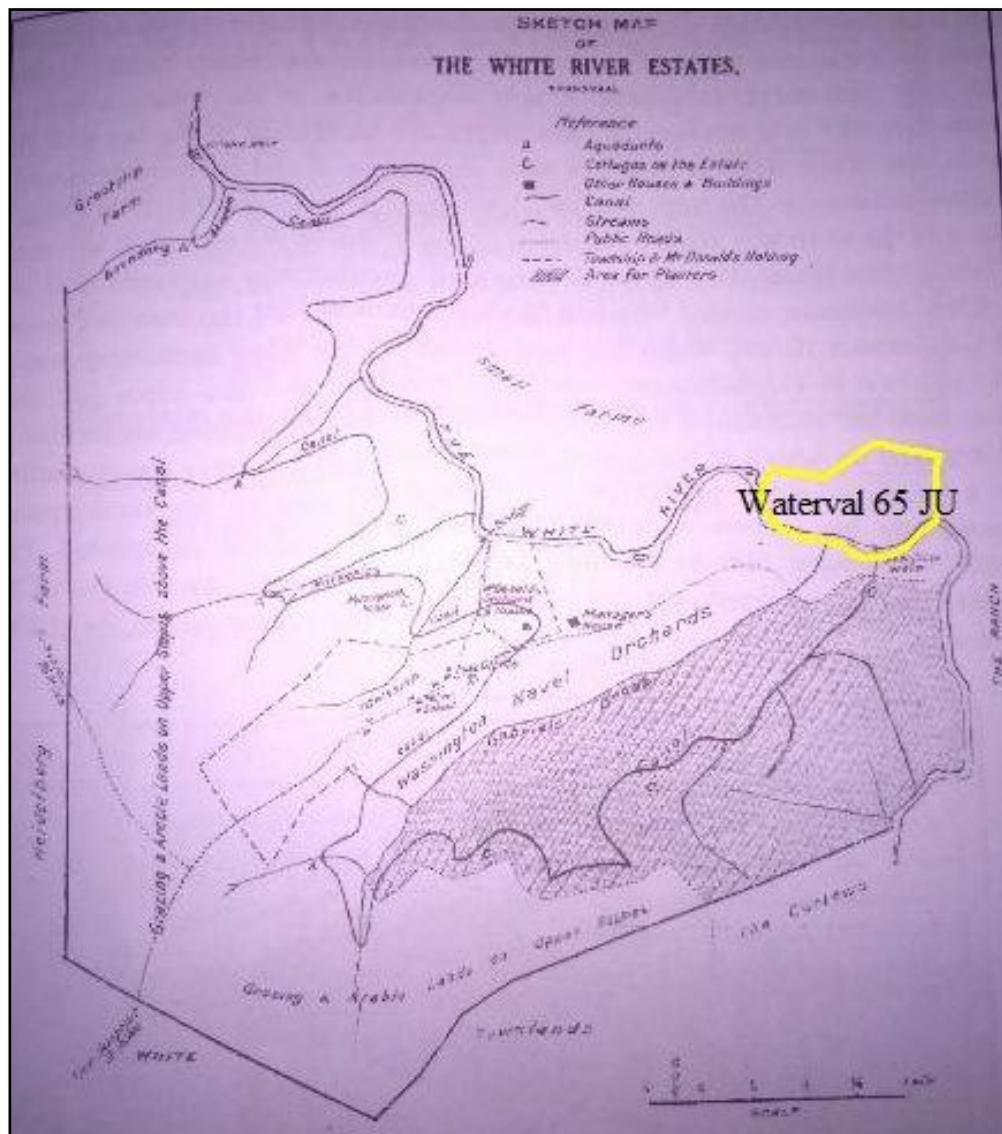


Fig. 4.3. This is a map of the White River township in 1919 (from Bornman, 2015) named the White River Estates it was subdivided into 48 farms for planters. The current Waternal 65 JU is indicated on the map.

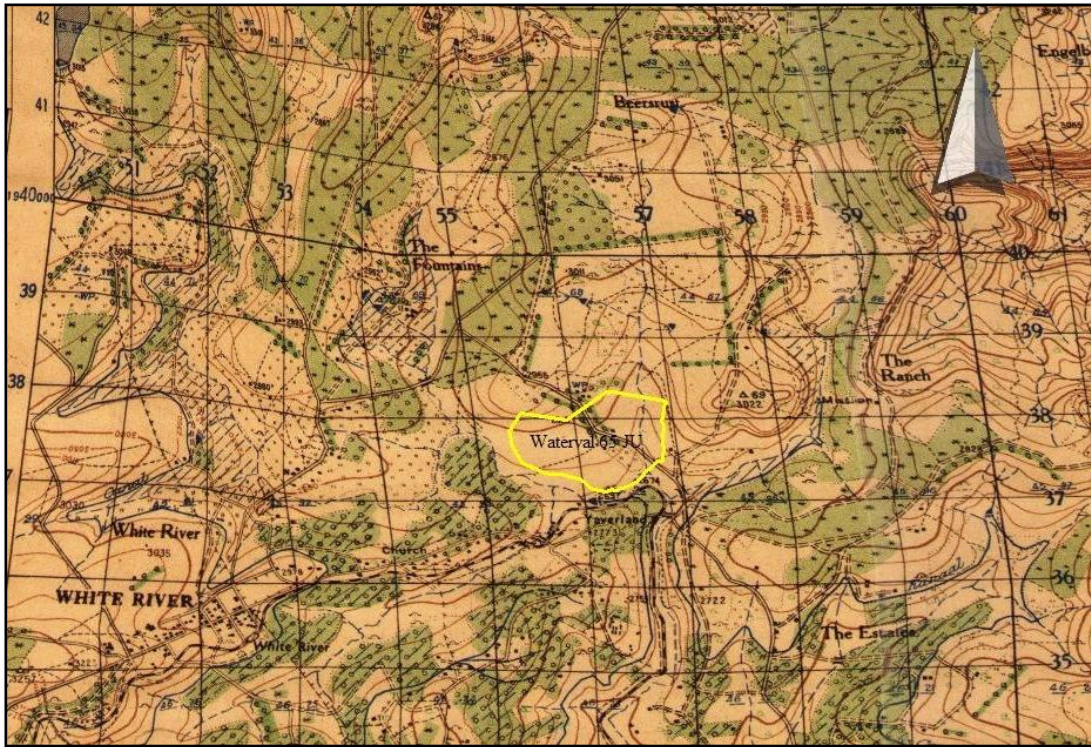


Fig. 4.4. A Topographic Map (1:50 000) of 1943. The location of Waterval 65 JU is indicated on the map.

The layout of the property was changed and a new survey done which formed the basis of the existing irrigation farms under the White River Canal. After the First World War Alec Cazalet got involved with the White River Estates and began a citrus nursery and citrus planting programme which eventually had all the plots under trees (Bornman, 2015). Plots were only sold after the War (1914-1918) and in 1920 the company bought adjoining farms “Klipkopje” and “The Ranch” and advertised citrus plots for sale in the British press (Bornman, 2015).



Fig. 4.5. Early settlers working with oxen and planting maize. Photo from Bornman, 2015.

The White River Estates were subdivided into 48 farms for prospective farmers (planters of citrus). The estate consisted of an area of 7800 acres of which 2800 were under irrigation from the canal. It was Company policy to attract planters (farmers) of good standing, because to plant and develop citrus without sufficient capital would result in failure. Many plots were sold to new settlers consisting of army, navy and air force veterans who formed the core of the White River population and were known as “the second group of settlers” (Bornman, 2015).

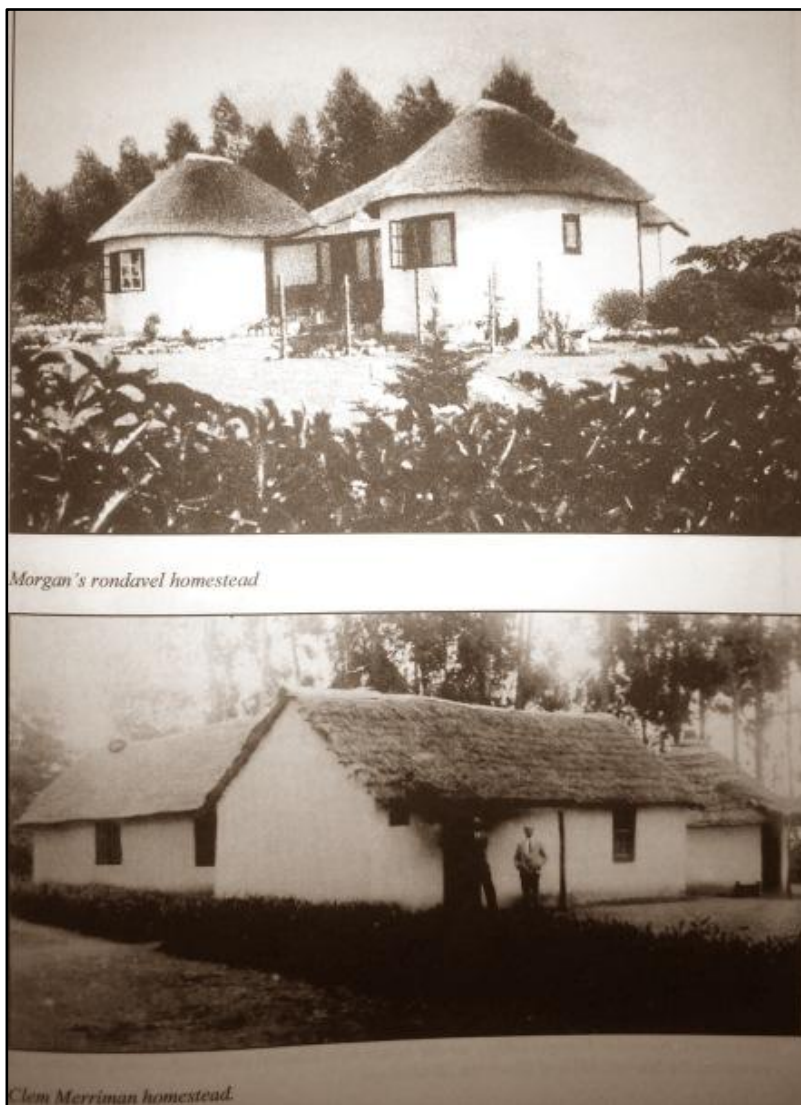


Fig. 4.6. Typical settler homes of the early days of White River.

4.2. Archaeology

4.2.1. Stone Age

In Mpumalanga Province the Drakensberg separates the interior plateau also known as the Highveld from the low-lying subtropical Lowveld which stretches to the Indian Ocean. A number of rivers amalgamate into two main river systems, the Olifants River and the Komati River. This fertile landscape has provided resources for humans and their predecessors for more than 1,7million years (Esterhuizen & Smith in Delius, 2007).

The initial attraction of abundant foods in the form of animals and plants eventually also led to the discovery of and utilisation of various minerals including ochre, iron and copper. People also obtained foreign resources by means of trade from the coast. From 900AD this included objects which were brought across the ocean from foreign shores.

The Early Stone Age (ESA)

In South Africa the ESA dates from about 2 million to 250 000 thousand years ago in other words from the early to middle Pleistocene. The archaeological record shows that as the early ancestors progressed physically, mentally and socially, bone and stone tools were developed. One of the most influential advances was their control of fire and diversifying their diet by exploitation of the natural environment (Esterhuizen & Smith in Delius, 2007).

The earliest tools date to around 2, 5 million years ago from the site of Gona in Ethiopia. Stone tools from this site shows that early hominids had to cognitive ability to select raw material and shape it for a specific application. Many bones found in association with stone tools like these have cut marks which lead scientists to believe that early hominids purposefully chipped cobblestones to produce flakes with a sharp edge capable of cutting and butchering animal carcasses. This supplementary diet of higher protein quantities ensured that brain development of hominids took place more rapidly.

Mary Leaky discovered tools like these in the Olduvai Gorge in Tanzania during the 1960s. The tools are named after this gorge and is known as the Oldowan industry. These tools, only found in Africa, are mainly simple flakes which were struck from cobbles. This method of manufacture remained for about 1,5 million years. Although there is continuing debate about who made these tools, two hominids may have been responsible. The first of these was an early form of *Homo* and the second was *Parathropus robustus*, which became extinct about 1 million years ago (Esterhuizen & Smith in Delius, 2007).

Some time later, around 1, 7 million years ago more specialised tools known as Acheulean tools, appeared. These are named after tools from a site in France by the name of Saint Acheul, where they were first discovered in the 1800s. It is argued that these tools had their origin in Africa and then spread towards Europe and Asia with the movement of hominids out of Africa. These tools had longer and sharper edges and shapes which suggest that they could be used for a larger range of activities which

included the butchering of animals, chopping of wood, digging roots and cracking bone. *Homo ergaster* was probably responsible for the manufacture of Acheulean tools in South Africa. This physical type was arguably physically similar to modern humans, a larger brain and modern face, body height and proportion are all characteristics which are very similar to us. *Homo ergaster* was able to flourish in a variety of habitats in part because they were dependent on tools. They adapted to drier, more open grassland settings. Because these early people were often associated with water sources such as rivers and lakes, sites where they left evidence of their occupation are very rare. Most tools of these people have been washed into caves, eroded out of riverbanks and washed downriver. An example in Mpumalanga is Maleoskop on the farm Rietkloof where ESA tools have been found. This is one of only a handful of such sites in Mpumalanga.

Middle Stone Age (MSA)

A greater variety of tools with diverse sizes and shapes appeared by 250 000 BP. These replaced the large hand axes and cleavers of the ESA. This technological advancement introduces the Middle Stone Age (MSA). This period is characterised by tools which are smaller in size but different in manufacturing technique (Esterhuizen & Smith in Delius, 2007).

In contrast to the ESA technology of removing flakes from a core, MSA tools were flakes to start with. They were of a predetermined size and shape and were made by preparing a core of suitable material and striking off the flake so that it was flaked according to a shape which the toolmaker desired. Elongated, parallel-sided blades, as well as triangular flakes are common finds in these assemblages. Mounting of stone tools onto wood or bone to produce spears, knives and axes became popular during the MSA. These early humans not only settled close to water sources but also occupied caves and shelters. The MSA represents the transition of more archaic physical type (*Homo*) to anatomically modern humans, *Homo sapiens*.

The MSA has not been extensively studied in Mpumalanga but evidence of this period has been excavated at Bushman Rock Shelter, a well-known site on the farm Klipfonteinhoek in the Ohrigstad district. This cave was excavated twice in the 1960s by Louw and later by Eloff. The MSA layers show that the cave was repeatedly visited over a long period. Lower layers have been dated to over 40 000 BP while the top layers date to approximately 27 000 BP (Esterhuizen & Smith in Delius, 2007; Bergh, 1998).

Later Stone Age (LSA)

Early hunter gatherer societies were responsible for a number of technological innovations and social transformations during this period starting at around 20 000 years BP. Hunting of animals proved more successful with the innovation of the bow and link-shaft arrow. These arrows were made up of a bone tip which was poisoned and loosely linked to the main shaft of the arrow. Upon impact, the tip and shaft separated leaving the poisoned arrow-tip imbedded in the prey animal. Additional innovations include

bored stones used as digging stick weights to uproot tubers and roots; small stone tools, mostly less than 25mm long, used for cutting of meat and scraping of hides; polished bone tools such as needles; twine made from plant fibres and leather; tortoiseshell bowls; ostrich eggshell beads; as well as other ornaments and artwork (Esterhuizen & Smith in Delius, 2007).

At Bushman Rock Shelter the MSA is also represented and starts at around 12 000 BP but only lasted for some 3 000 years. The LSA is of importance in geological terms as it marks the transition from the Pleistocene to the Holocene which was accompanied by a gradual shift from cooler to warmer temperatures. This change had its greatest influence on the higher lying areas of South Africa. Both Bushman Rock Shelter and a nearby site, Heuningneskrans, have revealed a greater use in plant foods and fruit during this period (Esterhuizen & Smith in Delius, 2007; Bergh, 1998).

Faunal evidence suggests that LSA hunter-gatherers trapped and hunted zebra, warthog and bovinds of various sizes. They also diversified their protein diet by gathering tortoises and land snails (*Achatina*) in large quantities.

Ostrich eggshell beads were found in most of the levels at these two sites. It appears that there is a gap of approximately 4 000 years in the Mpumalanga LSA record between 9 000 BP and 5 000 BP. This may be a result of generally little Stone Age research being conducted in the province. It is, however, also a period known for rapid warming and major climate fluctuation which may have led people to seek out protected environments in this area. The Mpumalanga Stone Age sequence is visible again during the mid-Holocene at the farm Honingklip near Badplaas in the Carolina district (Esterhuizen & Smith in Delius, 2007; Bergh, 1998).

At this location, two LSA sites were located on opposite sides of the Nhlazatshe River, about one kilometre west of its confluence with the Teespruit. These two sites are located on the foothills of the Drakensberg where the climate is warmer than the Highveld but also cooler than the Lowveld (Esterhuizen & Smith in Delius, 2007; Bergh, 1998).

Nearby the sites, dated to between 4 870 BP and 200 BP are four panels which contain rock art. Colouring material is present in all the excavated layers of the site which makes it difficult to determine whether the rock art was painted during the mid- or later Holocene. Stone walls at both sites date from the last 250 years of hunter gatherer occupation and they may have served as protection from predators and intruders (Esterhuizen & Smith in Delius, 2007; Bergh, 1998).

4.2.2. Early Iron Age

The period referred to as the Early Iron Age (AD 200-1500 approx.) started when presumably Karanga (north-east African) herder groups moved into the north eastern parts of South Africa. It is believed that these people may have been responsible for making of the famous Lydenburg Heads, ceramic masks dating to approximately 600AD.

Ludwig von Bezing was a boy of more or less 10 years of age when he first saw pieces of the now famous Lydenburg heads in 1957 while playing in the veld on his father's farm near Lydenburg. Five years later von Bezing developed an interest in archaeology and went back to where he first saw the shards. Between 1962 and 1966 he frequently visited the Sterkspruit valley to collect pieces of the seven clay heads. Von Bezing joined the archaeological club of the University of Cape Town when he studied medicine at this institution.

He took his finds to the university at the insistence of the club. He had not only found the heads, but potsherds, iron beads, copper beads, ostrich eggshell beads, pieces of bones and millstones. Archaeologists of the University of Cape Town and WITS Prof. Ray Innskeep and Dr Mike Evers excavated the site where von Bezing found the remains. This site and in particular its unique finds (heads, clay masks) instantly became internationally famous and was henceforth known as the Lydenburg Heads site.

Two of the clay masks are large enough to probably fit over the head of a child, the other five are approximately half that size. The masks have both human and animal features, a characteristic that may explain that they had symbolic use during initiation- and other religious ceremonies. Carbon dating proved that the heads date to approximately 600 AD and was made by Early Iron Age people. These people were Bantu herders and agriculturists and probably populated Southern Africa from areas north-east of the Limpopo river. Similar ceramics were later found in the Gustav Klingbiel Nature Reserve and researchers believe that they are related to the ceramic wares (pottery) of the Lydenburg Heads site in form, function and decorative motive. This sequence of pottery is formally known as the Klingbiel type pottery. No clay masks were found in similar context to this pottery sequence.

Two larger heads and five smaller ones make up the Lydenburg find. The heads are made of the same clay used in making household pottery. It is also made with the same technique used in the manufacture of household pottery. The smaller heads display the modeling of a curved forehead and the back neck as it curves into the skull. Around the neck of each of the heads, two or three rings are engraved horizontally and are filled in with hatching marks to form a pattern. A ridge of clay over the forehead and above the ears indicates the hairline. On the two larger heads a few rows of small clay balls indicate hair decorations. The mouth consists of lips – the smaller heads also have teeth. The seventh head has the snout of an animal and is the only head that represents an animal.

Some archaeological research was done during the 1970's at sites belonging to the EIA (Early Iron Age), location Plaston, a settlement close to White River (Evers, 1977). This site is located on a spur between the White River and a small tributary. It is situated on holding 119 at Plaston.

The site was discovered during house building operations when a collection of pottery shards was excavated. The finds consisted of pottery shards both on the surface and excavated.

Some of the pottery vessels were decorated with a red ochre wash. Two major decoration motifs occurred on the pots:

- Punctuation, using a single stylus and
- Broadline incision, the more common motif

A number of Early Iron Age pottery collections from Mpumalanga and Limpopo may be compared to the Plaston sample. They include Silver Leaves, Eiland, Matola, Klingbiel and the Lydenburg Heads site. The Plaston sample is distinguished from samples of these sites in terms of rim morphology, the majority of rims from Plaston are rounded and very few beveled. Rims from the other sites show more beveled rims (Evers, 1977:176).

Early Iron Age pottery was also excavated by archaeologist, Prof. Tom Huffman during 1997 on location where the Riverside Government complex is currently situated (Huffman, 1998). This site known as the Riverside site is situated a few kilometers north of Nelspruit next to the confluence of the Nelspruit and Crocodile River. It was discovered during the course of an environmental impact assessment for the new Mpumalanga Government complex/ offices. A bulldozer cutting exposed storage pits, cattle byres, a burial and midden on the crest of a gentle slope. Salvage excavations conducted during December 1997 and March 1998 recovered the burial and contents of several pits.

One of the pits contained among other items, pottery dating to the eleventh century (AD 1070 ± 40 BP) this relates the pottery to the Mzonjani and Broederstroom phases. The early assemblage belongs to the Kwale branch of the Urewe tradition.

During the early 1970's Dr Mike Evers of the University of the Witwatersrand conducted fieldwork and excavations in the Eastern Transvaal. Two areas were studied, the Letaba area south of the Groot Letaba River, west of the Lebombo Mountains, east of the great escarpment and north of the Olifants River. The second area was the Eastern Transvaal escarpment area between Lydenburg and Machadodorp.

These two areas are referred to as the Lowveld and escarpment respectively. The earliest work on Iron Age archaeology was conducted by Trevor and Hall in 1912. This revealed prehistoric copper-, gold- and iron mines. Schwelinus (1937) reported smelting furnaces, a salt factory and terraces near Phalaborwa. In the same year D.S. van der Merwe located ruins, graves, furnaces, terraces and soapstone objects in the Letaba area.

Mason (1964, 1965, 1967, 1968) started the first scientific excavation in the Lowveld which was followed by N.J. van der Merwe and Scully. M. Klapwijk (1973, 1974) also excavated an Early Iron Age (EIA) site at Silverleaves and Evers and van den Berg (1974) excavated at Harmony and Eiland, both EIA sites.

Recent research by the National Cultural History Museum resulted in the excavation of an Early Iron Age site in Sekhukuneland, known as Mototolong (Van Schalkwyk, 2007). The site is characterized by four large cattle kraals containing ceramics which may be attributed to the Mzonjani and Doornkop occupational phases.

4.2.3. Late Iron Age

The later phases of the Iron Age (AD 1600-1800's) is represented by various tribes including Ndebele, Swazi, BaKoni, Pedi marked by extensive stonewalled settlements found throughout the escarpment and particularly around Lydenburg, Badfontein, Sekhukuneland, Roossenekal and Steelpoort. The BaKoni were the architects of the stone-walled enclosures found throughout the escarpment area of Eastern Mpumalanga. These settlement complexes may be divided into three basic features: homesteads, terraces and cattle tracks. Researchers such as Mike Evers (1975) and Collett (1982) identified three basic settlement layouts in this area. Basically these sites can be divided into simple and complex ruins. Simple ruins are normally small in relation to more complex sites and have smaller central cattle byres and fewer huts. Complex ruins consist of a central cattle byre which has two opposing entrances and a number of semi-circular enclosures surrounding it. The perimeter wall of these sites is sometimes poorly visible. Huts are built between the central enclosure and the perimeter wall. These are all connected by track-ways referred to as cattle tracks. These tracks are made by building stone walls which forms a walkway for cattle to the centrally located cattle byres.

Smaller tribes such as the Pai and Pulana who resided in the Lowveld were attacked by and made to flee from the aggressive Swazi, especially during the *mfecane* (difaqane). They (Swazi) were particularly active in the Lowveld during the difaqane period (1820's) and it is well-known that they frequently attacked and ousted smaller herder groups like the Pai and Pulana, especially in the area today known as Low's Creek. They were however prevented from settling in the low-lying areas due to the presence of the tsetse fly and malaria. Consequently there is little evidence of large scale settlement in the Crocodile River valley until the time of colonial settlement (1890's) and later. Small, isolated dry-packed stone-walled enclosures found near Nelspruit and surrounding areas may be attributed to these smaller groups who hid away from the Swazi onslaught. The sites were probably not used for extended periods as they were frequently on the move as a result of the onslaught and therefore small, indistinct and with little associated cultural material.

5. Located sites, description and suggested mitigation

Ten (10) sites were documented. An historic farm stead, canal and weir structure (**sites WWA 3, WWA 5 and 6**) is rated with medium significance (**GPB; table 5.1, 5.2, 5.3, 5.4**) The farmstead is probably older than 60 years but has been vandalised, recording of the building before destruction is recommended. The historic water canal and weir are located outside the proposed development area in the White River south of the southern boundary. The remaining sites (**WWA 1, 2, 4 & 7**) comprise of the ruined remains of farm worker's dwellings and associated infrastructure and rated as low significance (**GPC; table 5.1, 5.2, 5.3, 5.4**). A number of sites were recorded for orientation and observation purposes (**sites WASO 1-3**).

Table 5.1. Summary of located sites and their significance

Type of site	Identified sites	Significance
Graves and graveyards	None	N/A
Late Iron Age	None	N/A
Early Iron Age	None	N/A
Historical buildings	One (WWA 3)	Medium; GPB
Historical features	Two (WWA 5 & 6)	Medium-High; GPA
Stone Age sites	None	N/A

Table 5.2. Significance rating guidelines for sites

Field Rating	Grade	Significance	Recommended Mitigation
National Significance (NS)	Grade 1		Conservation, nomination as national site
Provincial Significance (PS)	Grade 2		Conservation; Provincial site nomination
Local significance (LS 3A)	Grade 3A	High Significance	Conservation, No mitigation advised
Local Significance (LS 3B)	Grade 3B	High Significance	Mitigation but at least part of site should be retained
Generally Protected A (GPA)		High/ Medium Significance	Mitigation before destruction
Generally Protected B (GPB)		Medium Significance	Recording before destruction
Generally Protected C (GPC)		Low Significance	Destruction

5.2. Description of located sites

5.2.1. Site WWA 1.

Location: See Appendix B and D (fig. 1, 2).

Description: A large farm shed and associated outbuilding. The buildings are constructed of concrete blocks and walls are white-washed . They have a timber roof structure and probably had corrugated steel sheeting as roof covering. The buildings have been extensively vandalised. The buildings are considered to be of low heritage significance.

Impact of the proposed development/ activity:

The proposed development will probably impact on the buildings

Recommendation:

The buildings are not regarded as being of any heritage significance and therefore no recommendations are necessary.

5.2.2. Site WWA 2.

Location: See Appendix B and D (fig. 3).

Description: A circular concrete dam.

Impact of the proposed development/ activity:

The dam will possibly be impacted upon during the proposed development activity.

Recommendation:

The dam is not regarded as being of heritage significance and therefore no recommendations are necessary.

5.2.3. Site WWA 3.

Location: See Appendix B and D (fig. 4-7).

Description: A historic farmstead. The house is constructed of clay bricks and mortar which is plastered and painted. The roof structure is timber. The roof covering was probably corrugated steel sheets but they have been removed. Gutters and downpipes, window frames and doors have also been removed, the house has been extensively vandalised and its heritage value tarnished.

Impact of the proposed development/ activity:

The house will possibly be impacted upon during the proposed development activity.

Recommendation:

The building is probably older than 60 years and recording of the remaining structure is recommended before it is demolished.

5.2.4. Site WWA 4.

Location: See Appendix B and D (fig. 10-12).

Description: Thirteen farm worker's houses. These are two-room structures of concrete blocks and painted walls. They have been extensively vandalised and the roof structure, roof covering, doors and window frames removed.

Impact of the proposed development/ activity:

The houses will possibly be impacted upon during the proposed development activity.

Recommendation:

The buildings are not regarded as being of heritage significance therefore no recommendations necessary.

5.2.5. Site WWA 5.

Location: See Appendix B and D (fig. 13, 14).

Description: A historic water canal. This canal probably formed part of the historic canal built shortly after the Anglo-Boer War (1899-1902). It is a significant heritage feature associated with the establishment of the town of White River. *See fig. 4.3 and Appendix C.*

Impact of the proposed development/ activity:

The water canal will not be impacted upon during the proposed development activity.

Recommendation:

No recommendations are needed as the canal will not be impacted upon by the proposed development activity.

5.2.6. Site WWA 6.

Location: See Appendix B and D (fig. 18, 19).

Description: A historic weir structure in the White River. This structure is part of the historic canal which was built shortly after the Anglo-Boer War (1899-1902) to irrigate small plots issued by the Government for the establishment of agriculture in the new settlement of White River. *See fig. 4.3 and Appendix C.*

Impact of the proposed development/ activity:

The weir will not be impacted upon during the proposed development activity.

Recommendation:

No recommendations are needed as the weir will not be impacted upon by the proposed development activity.

5.2.7. Site WWA 7.

Location: See Appendix B and D (fig. 23-26).

Description: Two farmsteads which probably served as residence of the farm foremen. The building nearest the road may have served as a local farm store with attached residence.

Impact of the proposed development/ activity:

The buildings will possibly be impacted upon by the proposed development activity.

Recommendation:

No recommendations are needed as the water canal will not be impacted upon by the proposed development activity.

5.2.8. Site WASO 1.

Location: See Appendix B and D (fig. 8, 9)

Description: Survey orientation point.

Impact of the proposed development/ activity:

N/A

Recommendation:

N/A

5.2.9. Site WASO 2.

Location: See Appendix B and D (fig. 20-22).

Description: Survey orientation point.

Impact of the proposed development/ activity:

N/A

Recommendation:

N/A

5.2.10. Site WASO 3.

Location: See Appendix B and D (fig. 15-17).

Description: Survey orientation point

Impact of the proposed development/ activity:

N/A

Recommendation:

N/A

TABLE 5.3. General Significance of located sites and field rating.

Site No.	Description	Type of significance	Degree of significance	NHRA heritage resource & rating
WWA 1	Farm shed	Heritage Architecture	Archaeological: N/A Historic: Low	Buildings & Structures. Low. GPC.
WWA 2	Concrete dam	Heritage Architecture	Archaeological: None Historic: Low	Buildings & Structures. Low. GPC.
WWA 3	Farm stead	Heritage Architecture	Archaeological: None Historic: Medium	Buildings & Structures. Medium. GPB.
WWA 4	Farm Workers quarters	Heritage Architecture	Archaeological: None Historic: Low	Buildings & Structures. Low. GPC.
WWA 5	Historic water canal	Heritage Architecture	Archaeological: None Historic: Medium-High	Buildings & Structures. Medium. GPA.
WWA 6	Historic weir structure	Heritage Architecture	Archaeological: None Historic: Medium-High	Buildings & Structures. Medium. GPA.
WWA 7	Farm Workers quarters & farmstead	Heritage Architecture	Archaeological: None Historic: Low	Buildings & Structures. Low. GPC.
WASO1	Survey orientation	None	Archaeological: None Historic: None	N/A
WASO2	Survey orientation	None	Archaeological: None Historic: None	N/A
WASO3	Survey orientation	None	Archaeological: None Historic: None	N/A

TABLE 5.4. Site condition assessment and management recommendations.

Site no.	Type of Heritage resource	Integrity of cultural material	Preservation condition of site	Relative location	Quality of archaeological/historic material	Quantity of site features	Recommended conservation management
WWA1	Buildings & structures	Fair-Poor	Fair-Poor	Waterval 65 JU	N/A	2	None
WWA2	Buildings & structures	Poor	Poor	Waterval 65 JU	N/A	1	None
WWA3	Buildings & structures	Poor	Poor	Waterval 65 JU	N/A	4	Record before demolish
WWA4	Buildings & structures	Poor	Poor	Waterval 65 JU	N/A	13	None
WWA5	Buildings & structures	Fair	Fair	Waterval 65 JU	N/A	1	Mitigation before impact
WWA6	Buildings & structures	Fair	Fair	Waterval 65 JU	N/A	1	Mitigation before impact 1
WWA 7	Buildings & structures	Fair-Poor	Fair-Poor	Waterval 65 JU	N/A	2	None
WASO1	None	N/A	N/A	Waterval 65 JU	N/A	N/A	N/A
WASO2	None	N/A	N/A	Waterval 65 JU	N/A	N/A	N/A
WASO3	None	N/A	N/A	Waterval 65 JU	N/A	N/A	N/A

6. Findings and recommendations

Recommendations were allocated to each site as discussed in section 5: **Located sites and their description, tables 5.3 and 5.4**. A total of ten (10) sites were located or recorded and documented. An historic farmstead, canal and weir structure (**sites WWA 3, WWA 5 and 6**) is rated with medium significance (**GPB; table 5.1, 5.2, 5.3, 5.4**). The farmstead has been extensively vandalised, recording of the building before destruction is recommended. The historic water canal and weir are located outside the proposed development area in the White River south of the southern boundary and will therefore not be impacted upon by the proposed township development. The remaining sites (**WWA 1, 2, 4**) comprise of the ruined remains of farm worker's dwellings and associated infrastructure and rated as low significance (**GPC; table 5.1, 5.2, 5.3, 5.4**). A number of sites were recorded for orientation and observation points (**WASO 1-3**) which provide insight into the characteristics and nature of the surveyed area.

The bulk of archaeological remains are normally located beneath the soil surface. It is therefore possible that some significant cultural material or remains were not located during this survey and will only be revealed when the soil is disturbed. Should excavation or large scale earth moving activities reveal any human skeletal remains, broken pieces of ceramic pottery, large quantities of sub-surface charcoal or any material that can be associated with previous occupation, a qualified archaeologist should be notified immediately. This will also temporarily halt such activities until an archaeologist have assessed the situation. It should be noted that if such a situation occurs it may have further financial implications.

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Appendix A

Terminology

“Alter” means any action affecting the structure, appearance or physical properties of a place or object, whether by way of structural or other works, by painting, plastering or other decoration or any other means.

“Archaeological” means –

- Material remains resulting from human activity which are in a state of disuse and are in or on land and which are older than 100 years, including artifacts, human and hominid remains and artificial features or structures;
- Rock Art, being any form of painting, engraving or other graphic representation on a fixed rock surface or loose rock or stone, which was executed by human agency and which is older than 100 years, including any area within 10m of such representation;
- Wrecks, being any vessel or aircraft, or any part thereof, which was wrecked in South Africa, whether on land, in the internal waters, the territorial waters or in the maritime culture zone of the Republic, as defined respectively in sections 3, 4 and 6 of the Maritime Zones Act, 1994 (Act No. 15 of 1994), and any cargo, debris or artifacts found or associated therewith, which is older than 60 years or which SAHRA considers to be worthy of conservation; and
- Features, structures and artefacts associated with military history which are older than 75 years and the sites on which they are found;

“Conservation”, in relation to heritage resources, includes protection, maintenance, preservation and sustainable use of places or objects so as to safeguard their cultural significance;

“Cultural significance” means aesthetic, architectural, historical, scientific, social, spiritual, linguistic or technological value or significance;

“Development” means any physical intervention, excavation, or action, other than those caused by natural forces, which may in the opinion of a heritage authority in any way result in a change to the nature, appearance or physical nature of a place, or influence its stability and future well-being, including –

- construction, alteration, demolition, removal or change of use of a place or a structure at a place;
- carrying out any works on or over or under a place;
- subdivision or consolidation of land comprising, a place, including the structures or airspace of a place;

- constructing or putting up for display signs or hoardings;
- any change to the natural or existing condition or topography of land; and
- any removal or destruction of trees, or removal of vegetation or topsoil;

“Expropriate” means the process as determined by the terms of and according to procedures described in the Expropriation Act, 1975 (Act No. 63 of 1975);

“Foreign cultural property”, in relation to a reciprocating state, means any object that is specifically designated by that state as being of importance for archaeology, history, literature, art or science;

“Grave” means a place of internment and includes the contents, headstone or other marker of such a place, and any other structure on or associated with such place;

“Heritage resource” means any place or object of cultural significance;

“Heritage register” means a list of heritage resources in a province;

“Heritage resources authority” means the South African Heritage Resources Agency, established in terms of section 11, or, insofar as this Act (25 of 1999) is applicable in or in respect of a province, a provincial heritage resources authority (PHRA);

“Heritage site” means a place declared to be a national heritage site by SAHRA or a place declared to be a provincial heritage site by a provincial heritage resources authority;

“Improvement” in relation to heritage resources, includes the repair, restoration and rehabilitation of a place protected in terms of this Act (25 of 1999);

“Land” includes land covered by water and the air space above the land;

“Living heritage” means the intangible aspects of inherited culture, and may include –

- cultural tradition;
- oral history;
- performance;
- ritual;
- popular memory;
- skills and techniques;
- indigenous knowledge systems; and
- the holistic approach to nature, society and social relationships;

“Management” in relation to heritage resources, includes the conservation, presentation and improvement of a place protected in terms of the Act;

“Object” means any moveable property of cultural significance which may be protected in terms of any provisions of the Act, including –

- any archaeological artifact;
- palaeontological and rare geological specimens;
- meteorites;
- other objects referred to in section 3 of the Act;

“Owner” includes the owner’s authorized agent and any person with a real interest in the property and –

- in the case of a place owned by the State or State-aided institutions, the Minister or any other person or body of persons responsible for the care, management or control of that place;
- in the case of tribal trust land, the recognized traditional authority;

“Place” includes –

- a site, area or region;
- a building or other structure which may include equipment, furniture, fittings and articles associated with or connected with such building or other structure;
- a group of buildings or other structures which may include equipment, furniture, fittings and articles associated with or connected with such group of buildings or other structures;
- an open space, including a public square, street or park; and
- in relation to the management of a place, includes the immediate surroundings of a place;

“Site” means any area of land, including land covered by water, and including any structures or objects thereon;

“Structure” means any building, works, device or other facility made by people and which is fixed to land, and includes any fixtures, fittings and equipment associated therewith.

Appendix B

List of located sites

A total of ten sites were located on the project area and numbered WWA 1-7 and WASO 1-3 respectively. The former are sites or features of heritage significance and the latter are sites recorded for survey orientation purposes. The initials "WWA" represent White River (town) and the farm Waterval followed by the number of the site, similarly, the initials WASO represent the farm "Waterval Survey Orientation". A spatial location with the aid of a GPS (Global Positioning System) was added to each site.

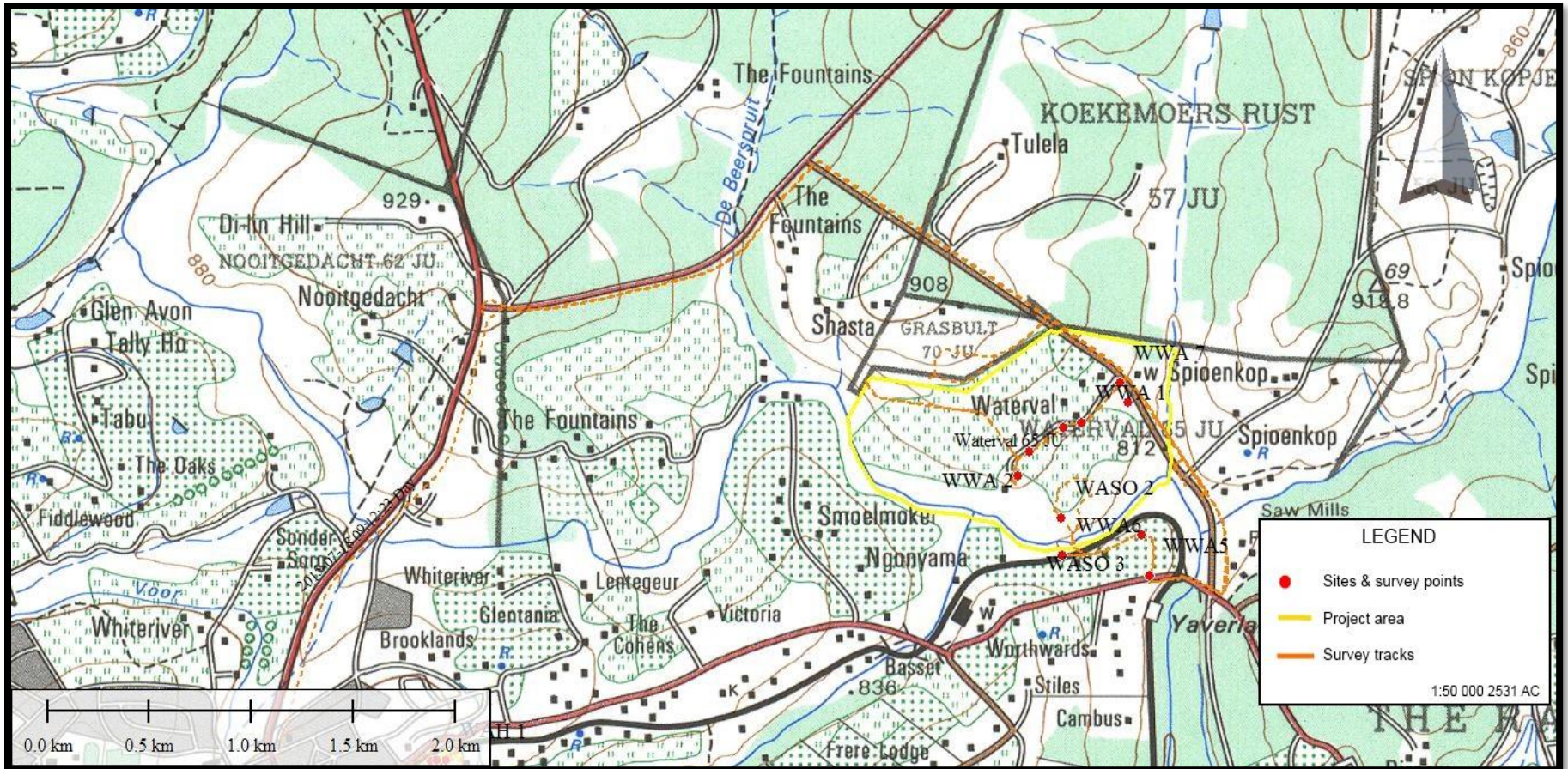
Table A. Site Locations.

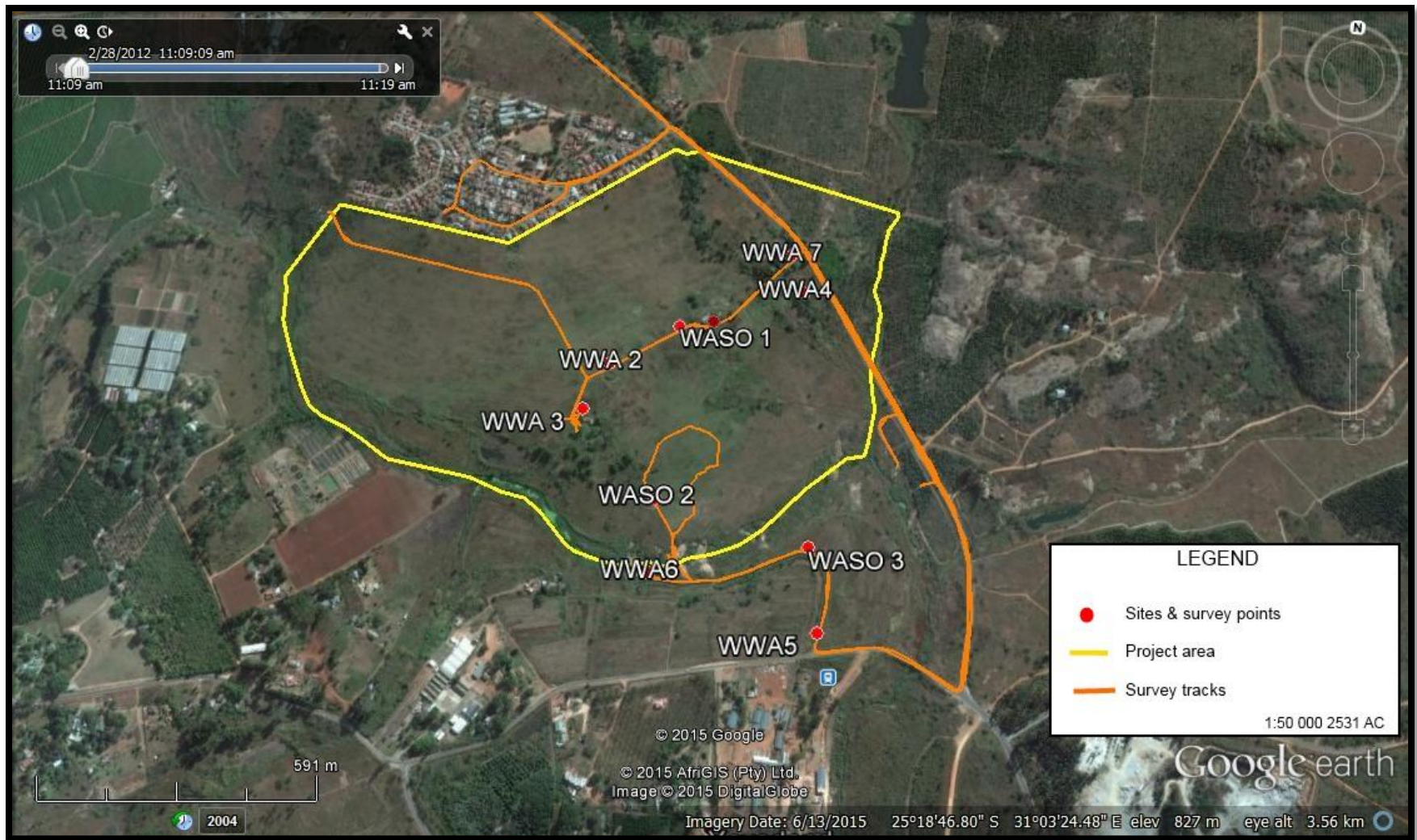
Site Name	Date of compilation	GPS Coordinates		Photo figure No.
WWA 1	18/07/2015	S25°18'39.19"	E031°03'23.91"	1, 2
WWA 2	18/07/2015	S25°18'43.40"	E031°03'15.56"	3
WWA 3	18/07/2015	S25°18'47.11"	E031°03'13.80"	4-7
WWA 4	18/07/2015	S25°18'36.07"	E031°03'31.39"	10-12
WWA 5	18/07/2015	S25°19'02.00"	E031°03'34.83"	13, 14
WWA 6	18/07/2015	S25°18'58.93"	E031°03'20.87"	18, 19
WWA 7	18/07/2015	S25°18'33.19"	E031°03'29.98"	23-26

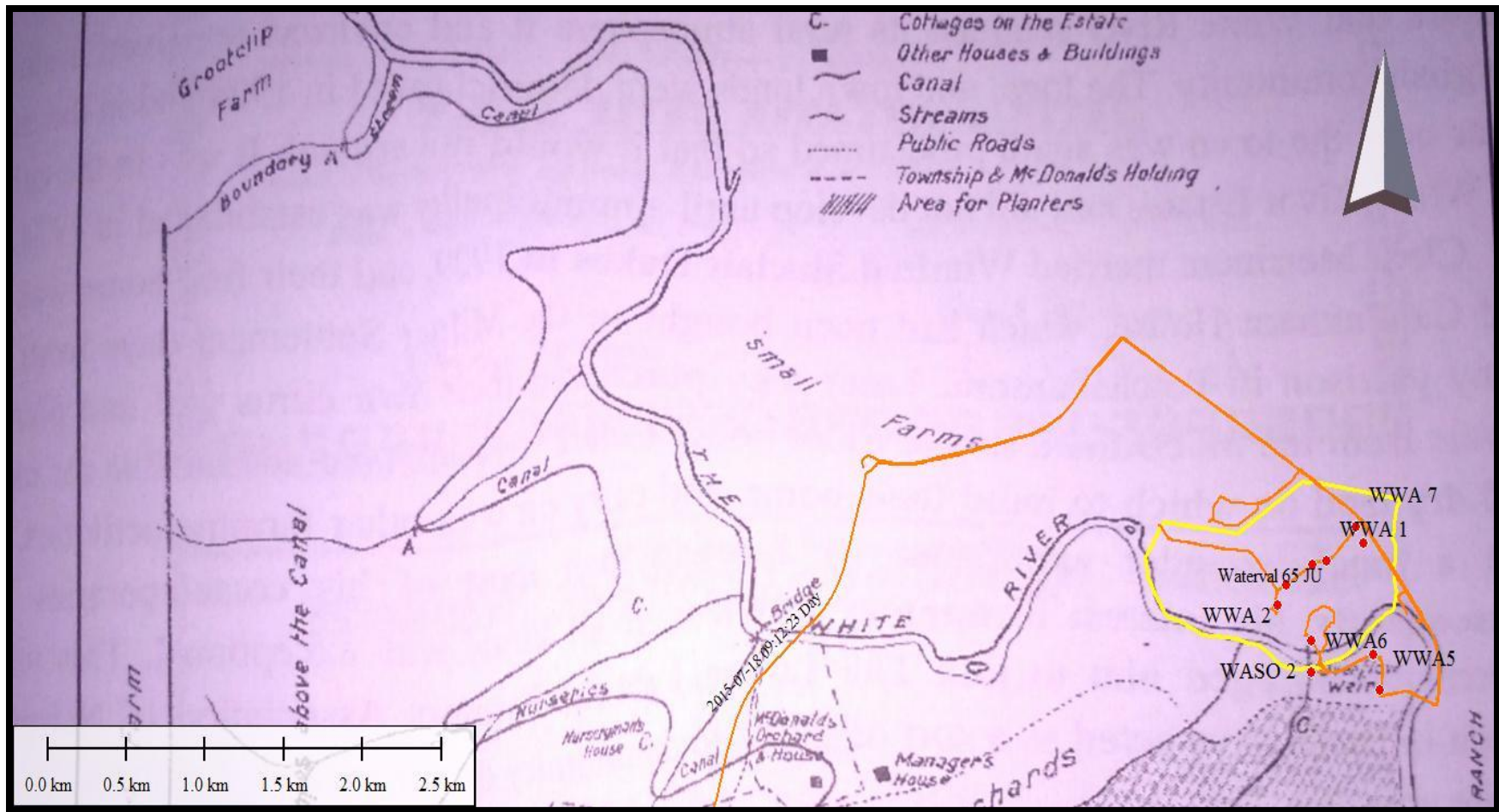
Table B. Survey Orientation Locations.

Site Name	Date of compilation	GPS Coordinates		Photo figure No.
WASO 1	18/07/2015	S25°18'39.88"	E031°03'21.10"	8, 9
WASO 2	18/07/2015	S25°18'53.36"	E031°03'20.69"	20-22
WASO 3	18/07/2015	S25°18'55.81"	E031°03'33.56"	15-17

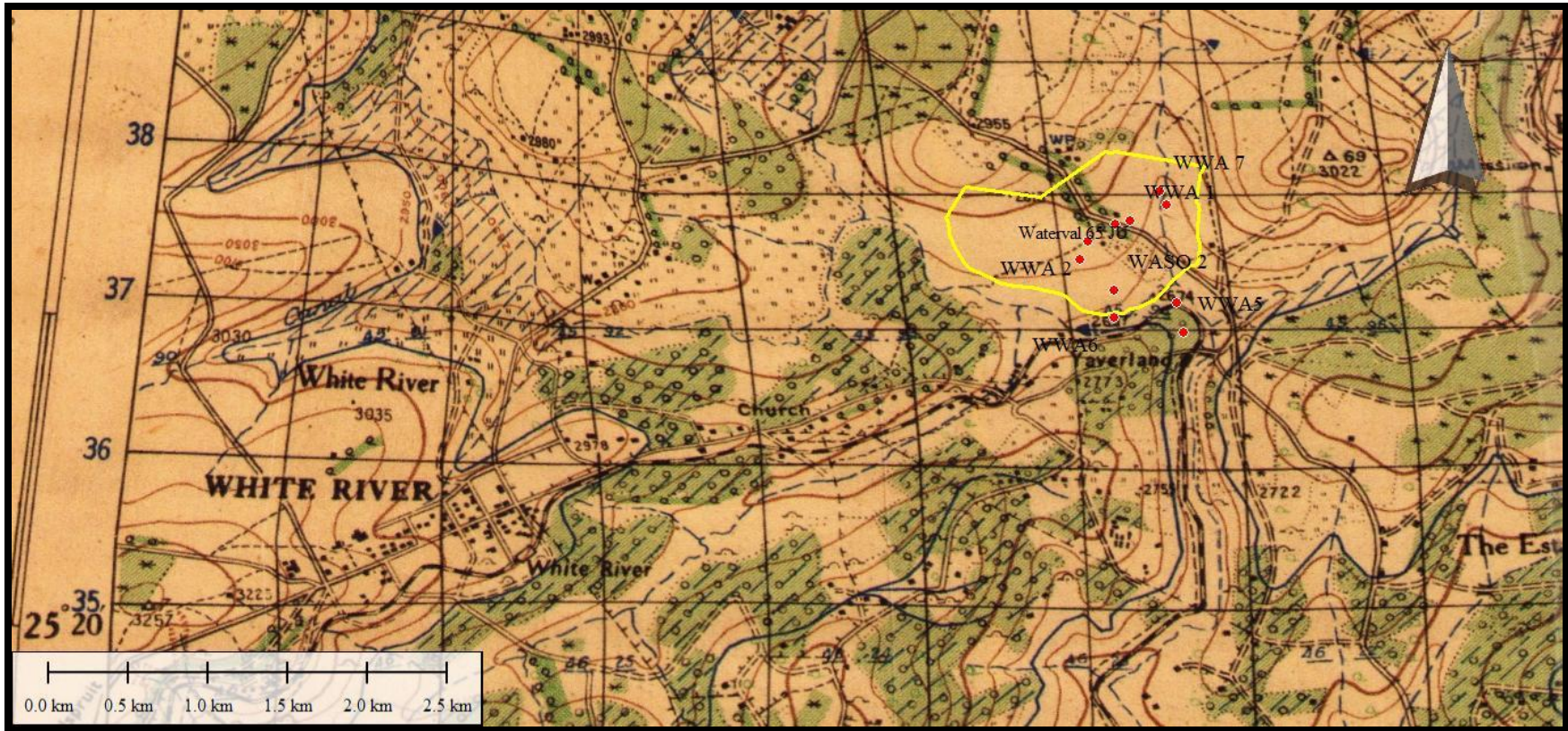
Appendix C







Map of White River Estates (1919) and the project area as well as located sites and survey tracks.



Topographic Map of White River (1943) with the project area in yellow and located sites as red dots.

Appendix D



Fig. 1. Site WWA 1. Photo of the remains of the shed taken in a western direction.



Fig. 2. Site WWA 1. Photo of the remains of the shed looking towards the north-east.



Fig. 3. Site WWA 2. An old concrete dam, possibly for irrigation or household water.



Fig. 4. Site WWA 3. The original Farmstead. Photo taken in eastern direction.



Fig. 5. Site WWA 3. The original farmstead, much of which has been vandalised.



Fig. 6. Site WWA 3. Associated outbuilding. Photo taken in southern direction.



Fig. 7. Site WWA 3. Two rondavel huts associated with the main farmstead. Photo taken in south-eastern direction.



Fig. 8. WASO 1. A survey orientation point. Photo taken in south-western direction.



Fig. 9. Site WASO 1. Survey orientation point. Photo taken in north-western direction.



Fig. 10. Site WWA 4. Farm worker's house, double room units of which there are 13 in total.
Photo taken in eastern direction.



Fig. 11. Site WWA 4. Three of the old farm workers dwellings, they also have been vandalised and roof, doors and window frames removed. . Photo taken in south-eastern direction.



Fig. 12. Site WWA 4. Old farm worker's house, close-up photo of the ruin. Photo taken in southern direction.



Fig. 13. Site WWA 12. A section of the historic water canal. Photo taken in southern direction.



Fig. 14. Site WWA 5. Historic water canal. Photo taken in northern direction.



Fig. 15. Site WASO 3. A survey orientation point further along the water canal. Photo taken in southern direction.



Fig. 16. Site WASO 3. Survey orientation point from where sites WWA1, WWA4 & WWA 7 are visible. Photo taken in north-western direction.



Fig. 17. Site WASO 3. Survey orientation point from where sites WWA1, WWA3 & WASO 2 and 3 are visible. Photo taken in western direction.



Fig. 18. Site WWA 6. The historic weir in the White River. Photo taken in south-western direction.



Fig. 19. Site WWA 6. A historic photo of the weir in the White River, taken from Bornman, 2015.



Fig. 20. Site WASO 2. Survey Orientation point, looking north-east.



Fig. 21. Site WASO 2. Survey Orientation point, looking East.



Fig. 22. Site WASO 2. Survey Orientation point, looking south-east.



Fig. 23. Site WWA 7. One of a few buildings associated with the farm manager's ensemble.



Fig. 24. Site WWA 7. The building may have served as a local farm store with attached residence.



Fig. 25. Site WWA 7. Attached buildings, looking in a western direction.



Fig. 26. Site WWA 7. A second residence probably used by the late farmer or farm manager.
Photo taken in western direction.