

**PHASE 1: ARCHAEOLOGICAL IMPACT ASSESSMENT: DAIRY
DEVELOPMENT AT ANN SHAW, MIDDLEDRIFT, EASTERN CAPE**

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EXECUTIVE SUMMARY

It is planned to develop some 200ha of old lands to the east and west of the Keiskamma River, near Middeldrift in the Eastern Cape, into pastures to support a dairy industry. An archaeological impact assessment is required in order to ensure that no archaeological sites will be impacted by the development. The AIA was required in view of the large number of heritage sites in the Ann Shaw area, just outside the heritage footprint.

The heritage sites were visited and their positions determined using a GPS. Their locations were then placed on a map and their position relative to the development footprint were evaluated. The Ann Shaw area is of particular interest to archaeologists because of the excavation, during the 1970's, of a number of ashy mounds to the south of the village. These mounds included both cattle and human burials and it has been suggested that they indicate Gonaqua Khoekhoen settlement prior to the 18th century. In addition, both amateur and professional archaeologists have reported on Early, Middle and Later Stone Age tool scatters in the area.

No archaeological remains were found in the development footprint. This area consists of gently sloping agricultural lands on both banks of the Keiskamma River. These lands have been ploughed and placed under crops since at least 1929. A field survey revealed no archaeological remains in the plough zone. It is possible that these fields may have contained scatters of stone tools in the past, but they are no longer visible and even if present, would not be in any kind of context. The ashy mounds referred to above are all located on higher ground out of the development area.

It is therefore recommended that development may take place, but that every effort should be made to report concentrations of ashy soil, human or animal bones, or pottery. It is recommended that the trustees of the development are alerted to the importance of the archaeology of the area and that they are advised to report any of the above to SAHRA.

INTRODUCTION

The area under discussion is located close to Ann Shaw, a little village some 2km south of Middeldrift (see Figure 1A and B). The old lands which are to be developed are sandwiched between the railway line and the Keiskamma River. They are mainly located to the west of the river, but there is a small portion to the east of the river.

The development will take the form of a dairy farm. Some 200 ha of land will be developed into pastures under irrigation, in order to feed some 800 cows. The study area comprises old lands and forms part of an historical irrigation scheme, apparently established in 1929 (Mr Tunyiswa pers comm.), which was subsequently upgraded into a sprinkler system in the 1990s. The project will install a modern pivot irrigation system and ryegrass and kikuyu grass will be planted.

TERMS OF REFERENCE

Dr L Webley was requested to undertake an Archaeological Impact Assessment of the 200ha in order to ensure that no archaeological sites would be impacted by the

development. The AIA was recommended by SAHRA in view of the fact that there are many heritage sites in the area. *Thus, while the aim of the survey was to ensure that archaeological sites would not be destroyed, it was also necessary to look at the distribution of heritage sites.* There are a number of important heritage sites in the Ann Shaw and Middeldrift area, and they form part of the Sandile Route. Some of these sites are being upgraded by the Department of Sport, Recreation, Arts and Culture (DSRAC) of the Eastern Cape government. However, it seems unlikely that the heritage sites would have been recorded by means of a GPS and equally unlikely that they would be plotted on a map. For this reason, this exercise was also undertaken in the survey.

NATIONAL HERITAGE RESOURCES ACT No 25 OF 1999

Section 38 of the National Heritage Resources Act of 1999 clearly stipulates that any person constructing a road or similar linear developments exceeding 300m in length or developing an area exceeding 5000 m² in extent is required to notify the responsible heritage resources authority or SAHRA. SAHRA will in turn advise whether an impact assessment report is needed before development can take place.

Section 34 of the Act stipulates that no person may alter or demolish any structure or part of a structure, which is older than 60 years without a permit issued by the relevant provincial heritage resources authority.

With regard burial grounds and graves, Section 36 (3) of the Act stipulates that no person may, without a permit issued by the relevant heritage authority or SAHRA, (a) destroy, damage or exhume the grave of the victim of conflict; (b) destroy, damage or exhume any grave or burial ground older than 60 years which is situated outside a formal cemetery administered by a local authority.

In terms of the Act all archaeological objects, palaeontological material and meteorites are the property of the State. Any person who discovers any of these materials in the course of development must immediately inform the responsible heritage resources authority. No person may, without a permit issued by the responsible heritage authority destroy, damage, excavate, alter, deface or disturb any archaeological sites and material, palaeontological sites and meteorites.

Living heritage (defined in the Act as including cultural tradition, oral history, performance, ritual, popular memory, skills and techniques, indigenous knowledge systems and the holistic approach to nature, society and social relationships) is also given protection under the Act. Section 24 of the Act makes provision for provincial heritage resources authorities to maintain a register of heritage resources and to set up management plans for their preservation.

All these aspects of the National Heritage Resources Act of 1999 have to be consulted when considering the proposed development. NHRA (1999) defines the word "development" to include "any change to the natural or existing condition or topography of land".

ARCHAEOLOGICAL BACKGROUND TO THE AREA

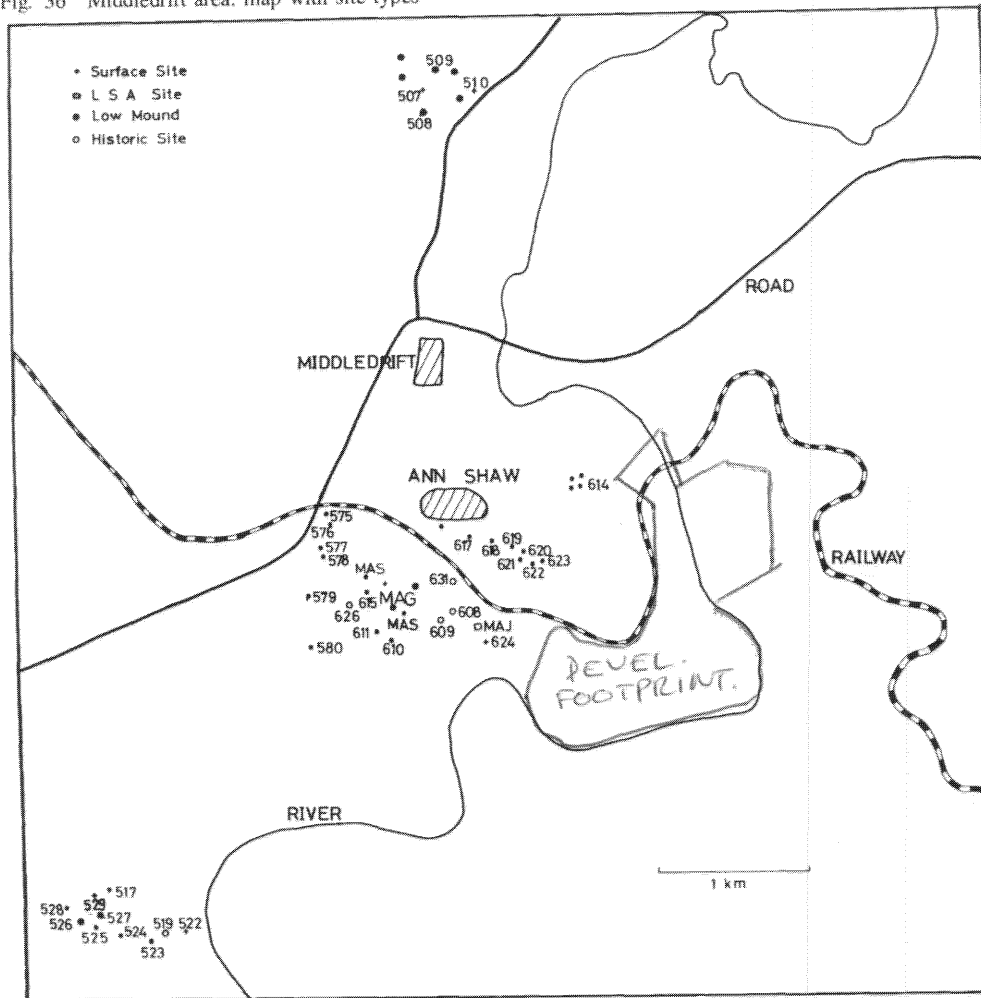
Our knowledge of the archaeology of the area is primarily derived from the important work of Robin Derricourt, an archaeologist employed at the University of Fort Hare in the 1970s. He was not the first, however, to discover archaeological sites in the area.

Derricourt (1977:31-32) reported on the fact that Early Stone Age (ESA) implements were found on the Middledrift commonage by Burkitt and Goodwin and published by them in 1928. "The context of the finds is the alluvial deposits of the Keiskamma at one of the rare areas in its course sufficiently flat to allow deposition. These deposits are in general sandy with rare gravel levels. Artefacts are exposed by streams cutting down across the commonage and by erosion gullies. Such material appears to be both ESA and Middle Stone Age (MSA), undifferentiated by physical condition". The gently sloping land west of the Keiskamma appears to have been a favourite location for settlement by the ESA, MSA and also LSA hunter-gatherers (see Terminology). They tended to settle near the river, their stone technology was based on lydianite. There are large collections of these stone tools types in the Fort Hare collections and at the Fort Beaufort Museum.

From approximately 1922 onwards a Mr Gladwin (presumably living in the area of Middledrift) started making donations to the Albany Museum. He reported on for example, scrapers "from a big round heap of earth, about 10 ft in diameter, containing ash (a hut site?) near **Middledrift**", a large hollowed stone used as grinding stone along with a "Negroid skeleton", "implements from an open Bushman site near the(space) River, these were on the surface of some white ashy earth, occupying an area of say 50 x 10 yards and included bits of distinctive Bushman pottery found by Mrs Cummings. Also a number of pieces of glass which seem to have been used. Also ostrich shell beads, and bone borer, etc". Later the Rev Stapleton and Mr Hewitt of Grahamstown made numerous collections. In another entry, reference is made to some "flakes and red pottery from surface of ground above **Euphorbia Kloof, Middle Drift**". These entries suggest that at least some residents of Middledrift recognised that the large ashy mounds represented early living sites.

It was the presence of these ashy soil mounds as well as references in tradition and early history to the settlement of the Gonaqua Hottentots in this area that attracted Derricourt and resulted in his surface survey as well as several excavations in 1971 and 1972 (Figure 2). A surface survey located numerous low mounds of ashy appearance distributed widely over the south of the Keiskamma in Ann Shaw location. Most of the mounds contrast with their surroundings by a greener and richer vegetation and are regularly selected as burrows for meerkats or antbears. These mounds are known to the villagers as "mounds formed by God for the meerkats to live in".

Fig. 36 Middledrift area: map with site types



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Figure 2: Derricourt's map (1977) showing the location of sites and excavations.

Excavations at the MAJ Main Mound produced a cattle burial. Lower levels contained a tightly crouched human burial as well as stone, pot and bone fragments. Derricourt was of the opinion that the cattle and human burials were contemporary as there was no evidence for stratigraphic layering. However, a subsequent late date for the cow burial (160 ± 50 BP) as well as differences in bone weathering suggests the cow may have been buried after the main occupation (2850 ± 50 BP). Derricourt (1977) discusses the long sequence of use of the site. Fauna is a mix of wild and domestic species.

Excavations at the MAS mounds also produced a cow burial. The deposit was dated to 920 ± 50 BP. The presence of juvenile cattle burials together with human burials is unusual and Derricourt notes that the pottery is finely made with a red burnish which suggests Khoekhoen rather than Iron Age. The inhabitants of both MAJ and MAS appear to have been pastoralist peoples exploiting cattle and wild fauna, with a stone technology and finely made pottery.

Excavations at the MAG mound revealed grain pits typical of the Nguni type. The grain pits contained animal bones and a grindstone. An ash heap contained some burnt

bone and cultural remains such as thick, crude pottery similar to other Later Iron Age pottery Derricourt had identified elsewhere. This site was dated to 30 ± 50 BP. This site ties in with the final development of the area by the Gqunukhwebe clan of the Xhosa after 1850.

HISTORICAL BACKGROUND OF THE PROPERTY

Early travellers and African tradition indicate that the land in this area was occupied by the Gonaqua Khoekhoen during the 16th and 17th century. In the late 18th century the Gqunukhwebe clan broke away from the Xhosa. They are assumed to be a mixture of Xhosa and Gonaqua who were clients of the Xhosa, they moved west across the Kei into Gonaqua territory. In 1752, the Keiskamma was still the boundary between the Gonaqua and the Xhosa but in 1775, the land west of the Keiskamma passed into Xhosa hands and this land became central to the Ngqika kingdom.

According to historical sources, the Gqunukhwebe under Chief Kama were given this land in 1853 by the British in return for their participation in the Frontier War of 1850. Chief Kama's grave is located near the mission church at Ann Shaw. Ann Shaw location is named after the wife of the missionary, William Shaw. Another famous family, the Jabavu's, are also associated with Ann Shaw and members of this family are also buried here.

METHODOLOGY

We visited Middeldrift on the 17 April 2008 to undertake the survey. We were accompanied by Mr X Tunyiswa of Ann Shaw, the son of the man who accompanied Derricourt during his surveys and field work in the 1970s. This fortunate coincidence meant that we were able to locate Derricourt's original sites.

Mr Tunyiswa insisted on showing us all the heritage sites in the area, in order to demonstrate that the development was not going to impact on them. While my brief was to undertake an archaeological impact assessment, I have also included the GPS co-ordinates of the heritage sites in the area for reasons given above. They were then placed on a map, indicating their position relative to the development.

We walked in a line from the church, down to Chief Kama's grave, then crossed the old furrow, the old minister's lands and attempted to reach the Keiskamma River. However, this particular area is covered in very dense acacia trees and it is not possible to reach the river itself. These particular lands, which lie between Ann Saw and the river, belong to the church, and the church is keen for it to be developed so that it can use the produce of the lands to assist in feeding the poor. However, it is important to note that this particular patch of land is not part of the 200ha which forms part of the development for the diary farm. We met some women working on the lands and they said that they often came across stone tools when they were hoeing in the lands.

We visited the area to the east of the Keiskamma River, which forms part of the development area. Sections are being cleared and burned, while others have already been ploughed. We then returned to the area to the west of the Keiskamma River,

between the river and the railway line, and walked across the old lands. No archaeological remains were discovered in these areas.

Finally, we visited the area to the south of Ann Shaw, in order to see if we could locate some of Derricourt's old sites, and visited the sites of Jako and Sodye.

RESULTS OF THE SURVEY: HERITAGE SITES

The following heritage sites were visited, GPS locations determined and digital photographs taken. The photographs are not included here as the heritage sites are located **outside** the development area, but are available if required by SAHRA or the EC PHRA.

DT Jabavu House:

S 32.49.28,6

E 26.59.39,3

Mission Church at Ann Shaw:

S 32.49.32,7

E 26.59.55,7

Chief Kama's Grave:

S 32.49.29,3

E 26.59.56,2

Old Irrigation Furrow of 1929:

S 32.49.28,6

E 26.59.58,9

Ruins of old Manse:

The manse was broken down in the 1980s and a new manse built elsewhere.

S 32.49.27,2

E 26.00.01,6

Grave of DDT Jabavu and wives

This cemetery is located close to the railway line and the development area but will not be impacted by them. There are not only the graves of DDT Jabavu and his wives and son, but also of the Tunyiswa family as well as many other unmarked graves.

S 32.50.22,0

E 26.00.51,8

Place of Jako:

According to Mr Tunyiswa, Jako belonged to the Ngqika peoples. He is reported to have lived in this spot under a tree. This area is at a considerable distance from the development. It was used by the abakhweta's until fairly recently, but then abandoned because of bad spirits. There are many round circles on the ground relating to their old huts.

S 32.50.11,7

E 26.59.22,1

Place of Sodye:

Sodye too, like Jako, was one of Ngqika's peoples. He is reported to have lived on this little hill under the tree. His site overlooks the development area, but will not be affected by it. His settlement is close to a natural ford across the Keiskamma River. The area is currently being used by the abakhweta's for their initiations.

S 32.50.12,0
E 26.59.35,1



Figure 3: The location of the heritage sites between Ann Shaw and the river.

No heritage sites will be affected. However, if at a future date a decision is made to extend the pastures to the area in front of the mission church (old church lands), then the ruins of the old manse and stone tools on the old fields will be impacted.

RESULTS OF THE SURVEY: LIVING HERITAGE

Mr Tunyiswa reported that there are oral accounts related to the Keiskamma River. According to one, there is a big snake, which resembles a python, which lives in the river. He apparently has a head like that of a dog. He is a benign snake and does not harm the residents of the area. According to another story, there are people who live in the river. The residents of Middledrift and Ann Shaw are scared of them and will not visit the river at night. Sometimes a strange light is seen at night near the river. It is believe to indicate the river people.

Boys who go into the bush for the abakhweta ceremony, initially put their huts up at Jako (see above) but then later moved to Sodye (see above).

No living heritage sites will be affected by the development.

RESULTS OF THE SURVEY: ARCHAEOLOGICAL SITES

MSA distribution:

Immediately in front of the ruins of the old Manse, is an open patch of land. This was the land allocated for the personal use of the minister of the mission. The crops he planted here were for his own use. Mr Tunyiswa recalled that as a boy he had to walk with the oxen while the minister held the plough. The soil is extremely soft and powdery and covered in Middle Stone Age flakes. There is also one broken grindstone lying on the old lands.

S 32.49.25,8

E 26.00.02,8

Derricourt's old excavations

Just below Jako is a large round mound which appears to be made of soft ashy soil. It is full of meerkat holes. However, a close inspection revealed no archaeological remains. According to Mr Tunyiswa, he can remember visiting this spot in the 1970's when his father was helping ~~with~~ Derricourt with his excavations. If one compares Derricourt's map with the Google map, it would appear that Mr Tunyiswa may have forgotten the exact location. However, even an approximate location is important as none of Derricourt's sites in Figure 2 have map co-ordinates.

S 32.50.13,5

E 26.59.23,1

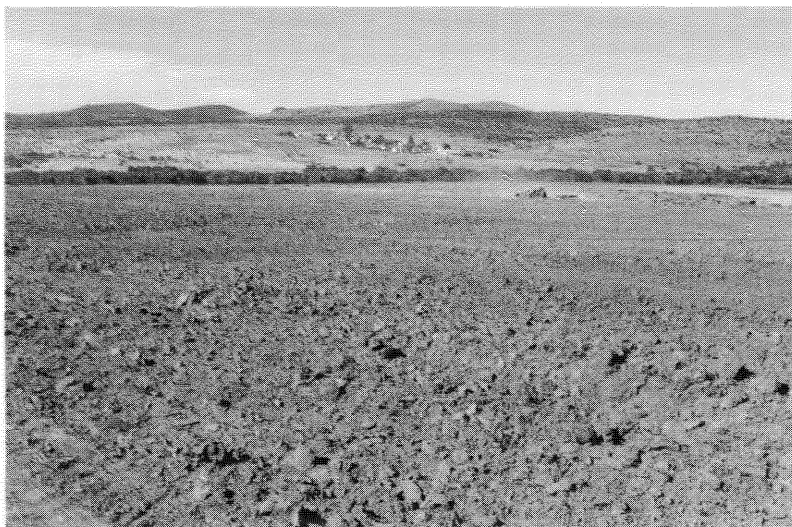


Figure 4: Showing the old lands being ploughed before the pastures are planted.

No archaeological sites were found in the development footprint. However, if at a future date a decision is made to extend the pastures to the area in front of the

mission church (old church lands), then the ruins of the old manse and stone tools on the old lands will be impacted.

DISCUSSION OF RESULTS, SIGNIFICANCE OF SITES AND SENSITIVITY OF THE AREA

The area around Middeldrift and Ann Shaw is potentially of great interest to historians and archaeologists. There are numerous important heritage sites in the area, many of which are currently being restored and developed as part of the Sandile trail. Less well known is the archaeology of the area. Both amateur and professional archaeologists have been interested in the many Stone Age sites as well as the more enigmatic mounds with their cattle and human burials. This general area is therefore of significance and sensitive to development.

However, all the heritage and archaeological sites are outside the development footprint. Further, the development footprint consists primarily of lands which have been ploughed for many years. The old furrows suggest that they may have been irrigated since 1929, but dry land cultivation may have been practised before this date. The old lands are very disturbed and no remains were found.



Figure 5: The approximate area of the development showing the old lands clearly.

MITIGATION

Since no visible sites will be affected by the development it is recommended that development may continue. The development will involve ploughing the lands (as they have been for the last 100 years) and sowing pasture grasses. The plough zone appears to extend down around 30-50 cm. If there are sites below this level, they will not be impacted by the development. No mitigation is therefore necessary.

RECOMMENDATIONS DURING THE CONSTRUCTION PHASE

I would recommend that development of the fields can take place. However, ploughing should be halted immediately if any of the features or artefacts below, are uncovered:

- 1) Fresh-water mussel shell middens close to the banks of the River
- 2) Concentrations of stone tools
- 3) Bones, including fossilized bones
- 4) Human remains, including burials
- 5) Concentrations of ash and/or old kraal surfaces
- 6) Remains of earlier (European) stone structures and/or artefacts

If any of the above is discovered, further development of the property must stop immediately and archaeologists as well as the South African Heritage Resources Agency should be contacted to determine the significance of the discovery.

ACKNOWLEDGEMENTS

I would like to thank Mr X Tunyiswa of the Ann Shaw community for accompanying us into the field and sharing with us his vast store of knowledge of the area. I would also like to thank Sabata Mageza, who accompanied me from the Albany Museum.

TERMINOLOGY

The prehistory of South Africa is generally divided into 3 periods by archaeologists; namely the Early Stone Age, the Middle Stone Age and the Later Stone Age.

Early Stone Age: the earliest ESA assemblages date from 1,7 million years ago. By around 1,5 million years ago, distinctive stone tools called handaxes appear and this seems to coincide with the appearance of *Homo erectus* peoples. These tools appear to have been made to the same pattern until around 200 000 years ago.

Middle Stone Age: Stone tools from this period are often made on fine-grained stone and they reflect a more controlled use of the flaking properties. These tools date between 200 000 and 40 000 years ago. In some circumstances, fossil bones and marine shells have been found in association.

Later Stone Age: LSA peoples were ancestral to the San (Bushmen) and lived in South Africa between 40 000 years ago and colonial times. During most of the Holocene (last 10 000 years) southern Africa was inhabited by small bands of mobile hunter-gatherer groups. Where these groups lived at the shore they generally exploited

coastal resources such as marine shell and marine mammals. Sheep and pottery first occur in archaeological sites around 2000 years ago and they point to the arrival of a new economy in South Africa, that of pastoralism. These groups were probably the ancestors of the colonial Khoekhoen. Later Stone Age tools are typically made on fine-grained cherts and chalcedonies, although quartz tools are also very common. They are generally microlithic in size and conform to certain designs, such as scraper, segments and adzes. They are easy to recognize and date.

REFERENCES

Derricourt, R. 1977. Prehistoric Man in the Ciskei and Transkei. Cape Town: Struik.

Accession Registers of the Albany Museum (unpublished).



Figure 1A: 3227 CC Debe Nek. The old lands between the railway line and the River are clearly visible on the left.

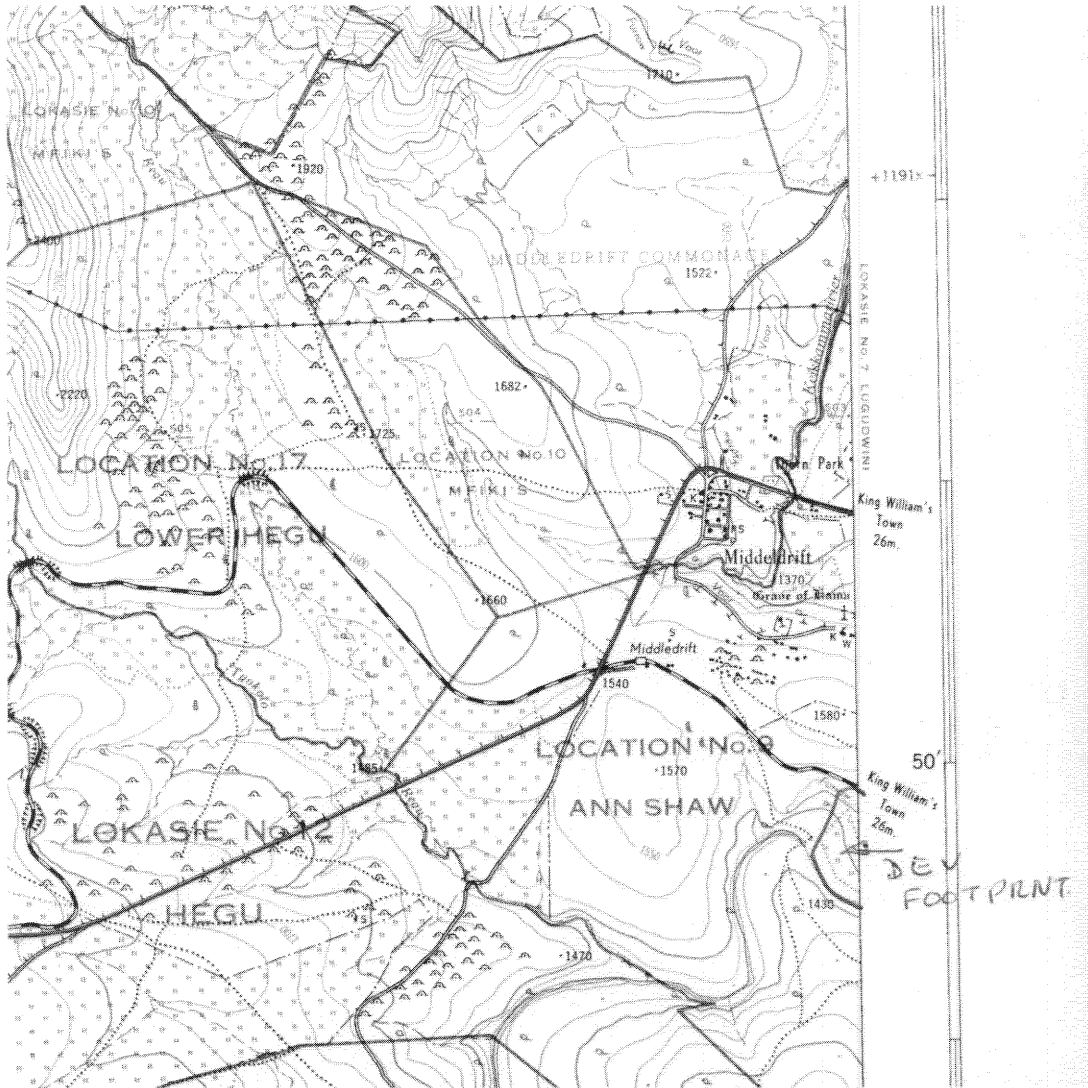


Figure 1B: 3226 DD Alice – the area to the south of Ann Shaw is clearly visible.

1. INTRODUCTION

The purpose of this project is to establish a dairy farm. This project will comprise the development of a fully equipped modern dairy that will milk approximately 800 cows. Approximately 200ha of land will be developed into pastures under irrigation to feed the cows. The study area consists mostly of old lands and forms part of an historical irrigation scheme. The irrigation scheme was one of the first flood irrigation schemes in existence in South Africa and was subsequently upgraded into sprinkler irrigation by the department of Agric in the late 1990s. Thus only a small amount of undisturbed natural veld will be developed as part of this development.

The transformation or removal of indigenous vegetation of 3 hectares or more is a listed activity in terms of the Environmental Impact Assessment Regulations (R385 to R387) published in the Government Gazette of 21 April 2006 under Section 24 of the National Environmental Management Act (Act no 107 of 1998). This activity is listed in Government Notice No R386 of 2006 and is therefore subject to a basic assessment.

As part of the Basic Assessment Report a baseline ecological survey was conducted on the property in order to assess the bio-physical environment and identify any potential sensitive sites and impacts resulting from the implementation of the project.

1.1. LOCALITY

The proposed development area is situated near Middledrift in the Eastern Cape within an area that formed part of an irrigation scheme.

