# HERITAGE STATEMENT FOR THE PROPOSED OUTENIQUAS DRIFT ON THE GOURITZ RIVER, RIVERSDALE AND MOSSEL BAY MAGISTERIAL DISTRICTS, WESTERN CAPE

(Assessment conducted under Section 38 (8) of the National Heritage Resources Act (No. 25 of 1999) as part of an EIA)

Prepared for

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# **EXECUTIVE SUMMARY**

The UCT Archaeology Contracts Office was requested by CCA Environmental to conduct an assessment of heritage resources at four alternative locations for a proposed low level structure across the Gourits River near Herbertsdale. The new crossing is required to replace one that washed away several years ago and to alleviate access issues in the area. Four alternatives have been proposed. This study examines only the actual crossing points and a separate study will be initiated for the access roads once a crossing point has been chosen.

The sites tend to have river terraces on either side of the river with dense, thorny thicket growing between the terraces and the actual river channel. Much of the terrace areas are under grass for grazing or have at least been ploughed in the past. In some areas though, there are steep slopes/cliffs adjoining the river channel and/or limited indigenous vegetation.

The general area is characterised by a well established agricultural landscape with structures of variable age. The majority seem to be from the 19<sup>th</sup> and 20<sup>th</sup> centuries. Early Stone Age artefacts are commonly encountered on farmland in the southern Cape area.

The sites were surveyed on foot with finds being photographed and their positions recorded by means of a GPS on the WGS84 datum.

A variety of heritage remains were found across three of the four sites with Site C yielding no heritage at all. Finds included scattered Early, Middle and Later Stone Age and historical artefacts, as well as concentrations of Later Stone Age and historical artefacts, some of which reflect living sites of indigenous people along the river margins. The significance of all these finds is rated as being between low and medium and some would require archaeological mitigation and/or destruction permits if they were to be disturbed.

Historical structures and ruins greater than 100 years of age were also present in places. At Site A the crossing would be very near a ruined farm complex and the significance of this complex would need to be determined before the crossing and access road could be allowed. There are also graves at this complex which should be addressed if any need to move them should arise.

Subject to the approval of Heritage Western Cape, the following recommendations pertain to each site if chosen:

- Site A: The project should be allowed to proceed with no further heritage work
  provided that care is taken when removing the stones at BD-04 just in case of
  anything present beneath and that all other heritage (excluding the aloes) are
  protected during construction;
- Site B: The project can only be allowed to proceed if none of the recorded sites are to be impacted. Otherwise archaeological mitigation and/or an application for a destruction permit will need to be carried out prior to commencement;
- Site C: The project should be allowed to proceed with no further work required; and
- Site D: The project can only proceed if none of the recorded graves, structures and ruins will be affected. Otherwise an HIA will need to be conducted in order to determine full significance of these finds.

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# **1. INTRODUCTION**

The UCT Archaeology Contracts Office was requested by CCA Environmental to conduct an assessment of heritage resources at four alternative locations for a proposed low level structure across the Gourits River near Herbertsdale (Figure 1). The river divides the Riversdale and Mossel Bay Magisterial Districts and as such the assessment footprints fall into both. Various parts of the area experience difficulties with regards to access and it has been proposed that the addition of another formal river crossing will alleviate the problem. Four alternative locations have been proposed (Figure 2) and this Environment Impact Assessment (EIA) looks only at the actual river crossings. A study of the approach roads (as required) will follow in the future as a separate EIA study one a crossing point has been selected.

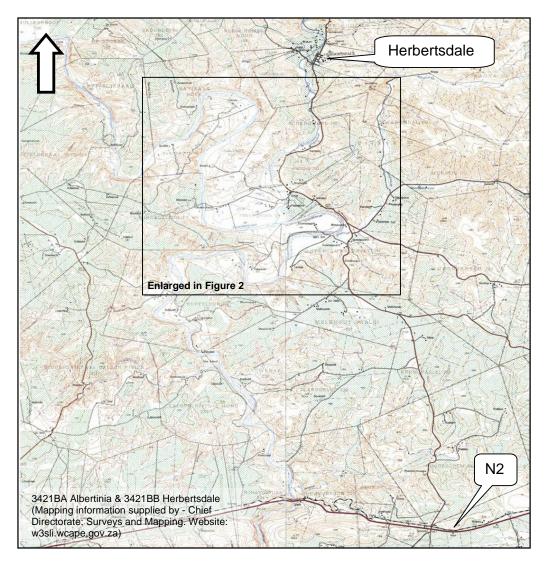


Figure 1: Map showing the general location of the study area between Herbertsdale and the N2 freeway.

Two of the sites are currently in use as crossing points although no formal infrastructure exists; the last structure was washed away by floods several years ago. At one (Site A) the local farmers simply drive through the river bed when the river is dry, while at another (Site C)

the farmers have dumped sand and rock into the river to create their own informal causeway resulting in much degradation of the local setting. At site B there are farm tracks leading to the river on either side but no crossing point, while at Site D a track leads to the river on one side only with most of the banks there being undisturbed.

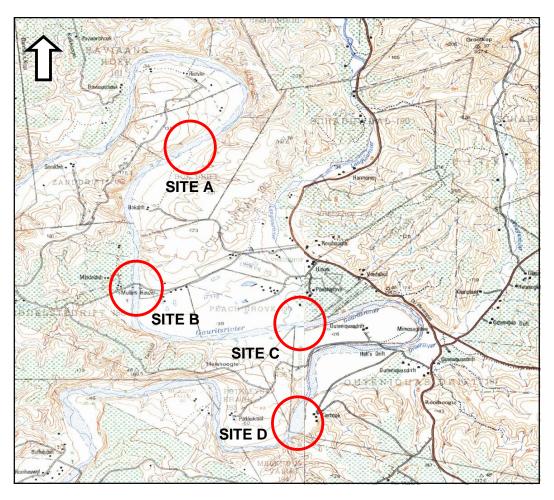


Figure 2: Enlargement of the boxed area in Figure 1 showing the four alternative locations.

# 2. HERITAGE LEGISLATION

The National Heritage Resources Act (NHRA) No. 25 of 1999 protects a variety of heritage resources including palaeontological, prehistoric and historical material (including ruins) more than 100 years old (Section 35), human remains (Section 36) and non-ruined structures older than 60 years (Section 34). Landscapes with cultural significance are also protected under the definition of the National Estate (Section 3 (3.2d)).

Since the project is subject to an Environmental Impact Assessment, Heritage Western Cape (HWC) is required to provide comment on the proposed project in order to facilitate final decision making by the Department of Environmental Affairs and Development Planning (DEA&DP).

# 3. DESCRIPTION OF THE AFFECTED ENVIRONMENT

In general the Gouritz River is characterised by dense thorny thicket along the river margins with silt terraces both above and below (Figure 3). In some areas there is bedrock that comes down close to river level and this would usually occur just behind the belt of thicket. More specific descriptions of each area follow. Note that heritage occurrences have been mapped on the aerial photographs in this section but are discussed in Section 6.

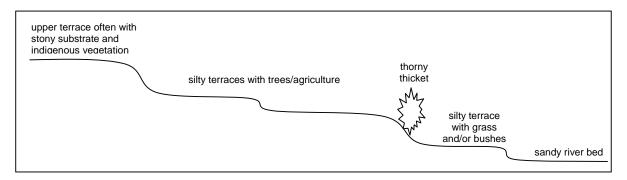


Figure 3: Generalised schematic cross-section through the banks of the Gouritz River.

## 3.1. Site A

At Site A there is a gentle slope on one side of the river with a silty terrace some 100 m wide but the opposite bank rises steeply from the river bed and has several large trees, including some milkwoods. A gravel road leads towards the river on both sides and locals currently just drive through the river bed when it is dry. One agricultural field is present but the majority of Site A is relatively undisturbed (Figures 4 to 8).



Figure 4: View towards the north. The proposed crossing would be behind and to the right of the vehicle. existing track approaching the river.

Figure 5: View towards the southeast showing the



Figure 6: The steep slope above the northwest bank of the river.

**Figure 7:** The track running towards the existing crossing point on the north-western side of the river.



**Figure 8:** Aerial photograph of Site A. The two gravel roads approaching the crossing point are readily visible though the engineers would probably seek to create a new crossing at 90° to the river.

## 3.2. Site B

Here the river is very wide with the tree-lined banks being some 170 m apart. The bush is particularly dense on the western side. On both sides there is a wide floodplain extending some 250 m from the trees. These silty terraces are used for grazing land but some parts are still under dense bush. On the east bank a rocky outcrop extends down to the river bed in the northern part of the study site at the exit point of a small a tributary stream. Figures 9 to 13 show the site. There was apparently a formal crossing at this location but this washed away several decades ago and nothing remains of the structure. At this site there are two possible

locations for a new structure. One would be in the centre of the study area linking the two current access roads, while the second would be a little further downstream.



Figure 9: View directly across the river at Site B. The dense trees on the opposite bank are visible.



Figure 10: The silty terrace immediately above the thorn bushes.



from the uppermost terrace. The middle terraces and the tree line are visible left of centre.



Figure 11: View towards the north along the east bank Figure 12: View towards the north on the east bank. The thorn trees are visible at far right.



**Figure 13:** Aerial photograph of Site B. The existing gravel roads only serve the farms on either side of the river and no crossing point exists. Immediately below the upper edge of the picture is a section of bedrock extending down to the river's edge.

#### 3.3. Site C

At Site C the river valley is wide and generally heavily disturbed, particularly in the vicinity of the proposed crossing (Figures 14 & 15). Agriculture and/or grazing occurs on much of the terraces and the 'edge' of the terrace area cannot be readily defined. The riverine thicket is generally thinner at this site as a result of disturbance encroaching on the river channel.



Figure 14: View towards the south across Site C.



Figure 15: View towards the north across Site C.



Figure 16: Looking towards the river from the north bank showing disturbed fields.



**Figure 17:** Aerial photograph of Site C. Gravel roads approach the river on either side but no crossing currently exists. The high degree of modification of the surrounding landscape is evident.

#### 3.4. Site D

Although agricultural lands also occur, there is more undisturbed natural environment here than at the other sites. Steep cliffs bound the river channel in places, while others have a silty floodplain. The riverine thicket is generally very dense close to the river but where this belt is wider on the east bank the bush thins out to some degree. In this area too are the remains of a farming settlement. Above one of the steep sections is a gravel-coated section of the uppermost river terrace. Figures 18 to 24 show the site.





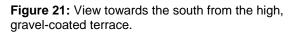
**Figure 18:** View across Site D towards the west. The high ground with gravel coating lies on the right on the far bank.

Figure 19: Dense riverine thicket on the west bank of the river.





Figure 20: View towards the southwest from the east bank of the river.





**Figure 22:** View towards the east from the low-lying agricultural fields on the west bank of the river.



**Figure 23:** View from the west showing agricultural land, ruins and structures on the east bank.



**Figure 24:** Aerial photograph of Site D. The crossing point is not marked by any roads so the red circle shows the proposed location. The small field immediately northwest of the circle is the high-lying terrace with gravel. Cliffs lie east of this field and also to the south of the red circle.

## 4. HERITAGE CONTEXT

The general region is characterised by farmland with scattered buildings of varying age present throughout. These appear to date mostly from about the mid- or late 19<sup>th</sup> century onwards but some older structures undoubtedly occur as well. An aerial photograph of the region as a hole shows that almost every available piece of flat land has been cultivated with only the steep river valleys remaining relatively undisturbed (Figure 25).

Early Stone Age artefacts are often reported from the southern Cape and tend to occur in agricultural fields where the ploughing and lack of vegetation allow greater visibility. Without doubt the Bushmen and Khoekhoen would have lived in the area, the latter with their flocks and herds.



**Figure 25:** Aerial photograph of the region showing the large proportion of cultivated land (brown or bright green areas). The four sites are indicated by the red letters. The uncultivated river valleys are obvious by their darker colour.

# 5. METHODS

The field survey was conducted by one archaeologist on 17<sup>th</sup> and 18th February 2010 in the company of other specialists. All sites were surveyed on foot with finds recorded photographically and GPS co-ordinates taken with a hand-held GPS receiver on the WGS84 datum. It should be noted that the actual project area was limited primarily to the river channel and immediate surrounds. For obvious reasons little heritage is ever likely in such contexts. The survey thus proceeded to cover a wider area to incorporate part of the approaches, even though a separate project would be initiated to deal with road alignments at a later stage. Some of the occurrences recorded will not be affected by the proposed crossings but are merely included for the sake of a more complete record for each area.

## 5.1. Limitations

Areas with dense, thorny thicket were difficult to survey but these were all along the river margins and are unlikely to contain any archaeology. Other areas were easily covered.

## 6. FINDINGS

Finds were very unevenly distributed across the four proposed development sites and will be dealt with on a site by site basis and presented in the order of discovery. Heritage occurrences have been named with a three letter prefix denoting the farm name and a number following Table 1. A summary of the findings appears in Table 2 at the end of this

section and, to avoid duplication, they are mapped on the aerial photographs in Section 3 above.

Site	Farm	Abbreviation
A (North)	Bok Drift 187	BD
A (South)	Bok Drift 187	BD
B (West)	Middelstedrift 186	MD
B (East)	Schaduwdal 190 & Middelstedrift 186	SD, MD
C (North)	Peach Grove 199	PG
C (South)	Middelstedrift 186, Farm 196, Outeniquas Drift 197	MD, F196, OD
D (West)	Portkleys Kraal 195, Farm 196	PK, F196
D (East)	Outeniquas Drift 197	OD

**Table 1:** List of farm names and numbers affected by each of the four proposed alternatives.

#### 6.1. Site A

#### 6.1.1. BD-01 (aloe line)

This is a 'tree' line of sisal aloes<sup>1</sup> (*Agave americana*) of unknown age but which can be considered an aspect of the cultural landscape. They run for some distance along the southeast bank of the river marking the edge of an agricultural field (Figure 26). The line extends to the southwest of the southern approach road but is far less prominent there.

#### 6.1.2. BD-02 (graveyard)

A farm graveyard was found to the north of the proposed crossing point (Figures 27 - 29). It is well away from the crossing. Although recently walled, the graveyard contains both older, less formal graves, as well as recent ones (up to 2006). Two informal stone-covered graves (2 adult, 3 children), one with a cement headstone and two with modern granite gravestones were present.



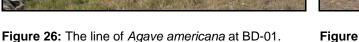




Figure 27: View of graveyard at BD-02.

<sup>&</sup>lt;sup>1</sup> Confirmed by the project botanist, Dave McDonald.





Figure 28: Graves at BD-02.

Figure 29: Graves at BD-02.

#### 6.1.3. BD-03 (artefacts and structures)

Here just two artefacts, one historical and one Stone Age, were found (Figure 30). One is a Stone Age flake of indeterminate age and the other a historical plate fragment. This point is essentially the southern limit of the farm werf which consists of a few buildings. The one at this point is modern (1992) but a smaller outbuilding further north seems older. The main homestead has three components<sup>2</sup>. The original wing, closest to the river, is approximately 200 years old with the extension forming a T being slightly younger. The second addition turned the house into an H in 1989. The house was not visited as all these structures are well away from the study area.



**Figure 30:** Artefacts at BD-03. Scale in cm.

**Figure 31:** The buildings at BD-03. The stone one dates to 1992..

Figure 32: The group of stones at BD-04.

6.1.4. BD-04 (?)

This point refers to a grouping of stones alongside the access road on the northwest side of the river (Figure 32). It has the appearance of a grave but its location makes this seem highly unlikely. It is recorded just in case there is a grave present.

6.1.5. BD-05 (grave)

<sup>&</sup>lt;sup>2</sup> Information pertaining to the development of the farmhouse was obtained directly from the farmer.

A further item of significance but which was not recorded during the survey is an isolated grave said to lie among the aloes alongside the access road on the south-eastern side of the crossing<sup>3</sup>. The person was an Englishman who died during a river survey camp after the Anglo-Boer War in 1902. The grave is unmarked and its exact location is no longer known. It would be well away from the proposed structure in the river channel though.

## 6.2. Site B

6.2.1. MD-01 (LSA artefacts)

This spot was pointed out by the farmer who informed me that two presumed pre-colonial graves had eroded out of the slope here before 1981. Farm workers subsequently exhumed the remains and reburied them nearby but the new location is unknown. Two quartz flakes were noted. The artefacts and possibly the graves might originate from site MD-02 which lies just a few metres away.

6.2.2. MD-02 (LSA site)

This site lies on the edge of the uppermost river terrace and its content is being revealed through natural erosion (Figure 33 & 34). It probably represents a location where people camped overlooking the river. Items noted were stone artefacts of quartzite as well as ostrich eggshell fragments and a bovid tooth (Figures 35 & 36). The deposits appear to contain quite a low density of archaeological material but the potential for *in situ* remains to be preserved is good. Inclusion of MSA material cannot be discounted.



**Figure 33:** View of site MD-02 on the edge of the uppermost river terrace.



Figure 34: Close up of the eroding deposits at MD-02.

<sup>&</sup>lt;sup>3</sup> This information also came directly from the farmer.



Figure 35: Quartzite artefacts from MD-02. Scale in cm.

Figure 36: Bovid tooth from MD-02.

6.2.3. MD-03 (LSA site)

This site is very similar to MD-02 and occurs in the same context. It is probably also LSA in age and quartzite artefacts and bone fragments were noted. Erosion at this site is worse and the chance of *in situ* remains may be smaller. Inclusion of MSA material cannot be discounted.

6.2.4. MD-04 (LSA site)

This site is again along the upper edge of the river valley and artefacts are eroding from the edge of the terrace. Artefacts were very numerous here (Figure 39) but no organic materials were seen. Although the vast majority of artefacts are of quartzite, one each of silcrete, quartz and another unidentifiable material were present. The range of artefacts includes flakes and cores as well as one hammer stone and one grindstone. The potential for *in situ* material exists. Again the possibility of there being MSA material at this site cannot be excluded.

6.2.5. SD-01 (LSA site)

This is a very low density scatter of artefacts in a similar context to the previous sites. It appears to be too ephemeral to of research value.



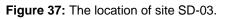




Figure 38: The context of MD-04.



Figure 39: Stone artefacts from MD-04. Scale in cm.

6.2.6. SD-02 (LSA site)

This is yet another similar exposure but is very large; artefacts are visible over a distance of at least 100 m. It is certainly less dense than MD-04 but the large area suggests that something of value may be preserved there. Only quartile artefacts were seen.

6.2.7. SD-03 (LSA site)

This is another similar site but with a very low density of artefacts. Artefacts of quartzite and quartz were noted. The site is also at the edge of the terrace and has little further value.

6.2.8. SD-04 (LSA site)

Again this site is an ephemeral scatter of artefacts. It differs only from the others in that it is not located along the edge of the terrace but slightly further back on level ground (Figure 42). It is alongside a small valley that leads down towards the main Gouritz River channel but is interrupted by a ploughed field. Quartzite and silcrete artefacts were noted (Figure 43).





Figure 40: The site at SD-02.

Figure 41: Stone artefacts from SD-02. Scale in cm.





Figure 42: The site at SD-04.

Figure 43: Stone artefacts from SD-04. Scale in cm.

6.2.9. SD-05 (artefacts)

This is a very low density scatter of Early Stone Age artefacts as well as one grindstone that it more likely Later Stone Age. The artefacts are evident in a ploughed field and are not in their original context.

6.2.10. SD-06 (structure)

This site is a small labourers cottage located in the middle of a field. It is in very poor condition and has had some modification over time, some of which appears to have been aimed at supporting the failing structure. The original structure is of soft clay bricks and mud and it has a hearth and chimney stack (Figure 47 & 48). It holds very little significance.

6.2.11. SD-07 (LSA site & MSA artefact)

This is another scatter of artefacts located at the edge of the uppermost river terrace. Most artefacts were of quartzite but one silcrete flake with a faceted platform was also found (Figure 49). This platform indicates that the piece is likely to be Middle Stone Age. The site has little potential.



Figure 44: The location of SD-05.

Figure 45: The upper grindstone from SD-05.



Figure 46: Stone artefacts from SD-05. Scale in cm.



Figure 47: The location of SD-06.

Figure 48: The front left corner of SD-06.



Figure 49: The flake with faceted platform from SD-07.

### 6.2.12. MD-05 (artefacts)

Here a low density scatter of mixed age was revealed by surface erosion. A few probably Later Stone Age flakes were found along with several historical items including ceramics,

glass and bone fragments. The historical artefacts no doubt originate from the ruin located very nearby (MD-06).



Figure 50: The location of MD-05.

Figure 51: Artefacts from MD-05. Scale in cm.

6.2.13. MD-06 (ruin)

This site is a ruined house that was built from stone and mud with a mud plaster (Figures 52 & 53). It seems wider than a traditional long house but it had its rooms side by side. Its total floor area is about 18 m by 6 m which includes a stoep extending along the front. It faces south. While the age of this ruin is unknown, it must date to at least the mid- to late  $19^{th}$  century.



Figure 52: View of the ruin at MD-06 looking from the northeast. Figure 53: Close-up of the walls at MD-06.

#### 6.2.14. MD-07 (ruin)

This site consists of two small outbuildings, one of brick and one of stone and brick. Their functions are unknown but they appear to be younger than the ruin at MD-06. They may even be less than 100 years of age.



Figure 54: View of one ruined structure at MD-07.



Figure 55: View of second ruined structure at MD-07.

6.2.15. MD-08 (artefacts)

This is a scatter of historical artefacts most likely connected with the ruin at MD-06. It consists of glass and ceramics only and they seem to date to the late 19<sup>th</sup> or early 20<sup>th</sup> century (Figure 56).

#### 6.2.16. MD-09 (tree line)

This tree line was not visited but is recorded here as a heritage feature. It consists of gum trees lining the road that leads onto the farm (Figure 57). Some of the trees closest to the river are very large, while those further away (to the southwest) are much smaller. Such tree lines are very characteristic of rural areas in the Western Cape and provide visual interest to the landscape.





**Figure 56:** Artefacts from MD-08. Scale in cm.

Figure 57: View of the tree line along the access road.

6.2.17. SD-08 (ruin)

This is a series of cement footings on the cliffs overlooking the east edge of the river channel (Figures 58 - 61). Their function is unknown but four possibilities exist. Immediately overhead is a set of power lines and the footings could represent the bases of an earlier power line crossing. It is known that a formal road crossing used to exist (see map in Figure 2) but this clearly lay between the roads further to the south. It is unknown whether any other sort of crossing existed here but the positions of these footings makes it highly unlikely that they relate to a bridge of any sort. Given the location at the exit point of a small valley, some of the structures could somehow relate to water, and thus most likely be farming infrastructure. However, at least one of the footings looks as though it may have carried a pipe (Figure 61). Nothing is present on the opposite side of the river and this last possibility is considered most likely. The footings are of variable construction with red bricks, cement blocks and river cobbles all being used and they are likely also of differing ages. The blocks are very rough and appear to be locally made. The footings are likely less than 100 years of age.





**Figure 58:** The location of the footings at SD-08. The footings lie in the valley and on the rocks to the right.

**Figure 59:** Looking south the some of the footings extending down the rocks.





Figure 60: The footings at the base of the stream valley.

Figure 61: Two footings at SD-08.

## 6.3. Site C

No heritage was found at Site C. The whole area within a few hundred metres of the proposed crossing point is quite heavily altered.

## 6.4. Site D

6.4.1. OD-01 (artefacts)

This is a low density scatter of historical artefacts that no doubt reflect the presence of a dump of some sort. They are of both glass and ceramics and bones are also present (Figure 62). The ceramics include willow pattern , annular ware and possibly flow blue and seem to reflect a typical late 19<sup>th</sup> century or early 20<sup>th</sup> century signature. They seem to be of insufficient density and in too poor a context to have any further value.

### 6.4.2. OD-02 (structure)

This is a small flat-roofed cottage built of shale slabs and mud (Figure 63). It has a corrugated iron roof and part of the wood-panelled ceiling is still in place (Figure 64). Some minor modifications have taken place over the years but none are very recent. These include resizing of the window facing the river and repairs to the roof (Figure 65).

#### 6.4.3. OD-03 (ruin)

Here were found the remains of a farmhouse built of clay bricks and mud and with a thatched roof (Figure 66). The house was apparently only abandoned and allowed to fall into ruin within the last three to four years. It may have been built in the mid-19<sup>th</sup> century or later but at least had some work done to it during Victorian times, since there are details that reflect this latter period. These include plaster work on corners and around openings (Figure 67) as well as wood panelling added to the doorway linking the room with the rest of the house (Figure 71). The fact that the Victorian features seem to be restricted to the stone addition supports an earlier construction date for the rest of the house. The house was T-shaped but with additions (Figure 68). One addition is a small room on the east side made of stone, while the other is a reservoir behind the southern end gable and also built of stone. There were stoeps on both the west and north sides and the roof was thatched.



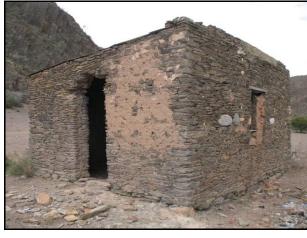


Figure 62: Artefacts from OD-01. Scale in cm.

Figure 63: The structure at OD-02.





Figure 64: The panelled ceiling at OD-02.

Figure 65: Modified window and parapet at OD-02.



Figure 66: The ruin at OD-03.



Figure 67: Victorian detail at OD-03.

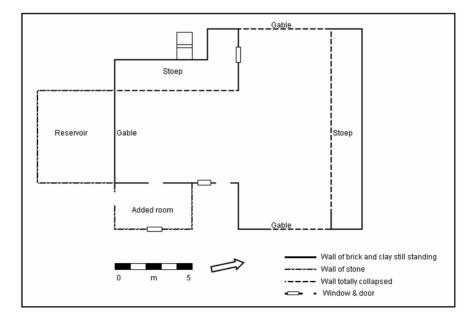


Figure 68: Plan of the ruin at OD-03. Arrow denotes north. The scale is approximate, measured only by pacing.



Figure 69: View of the ruin at OD-03 from the southeast. The stone additions can be seen (reservoir at left and extra room at centre).





Figure 70: View of the interior of OD-03.

Figure 71: Wood panelling on doorway in OD-03.

## 6.4.4. OD-04 (structure)

This structure appears to have been built more than 60 years ago as indicated by the stone work that resembles site OD-02. It has, however, been more recently renovated, possibly in the 1960s or 1970s. It has been recently abandoned as reflected by the modern rubbish strewn about the area.





Figure 72: View of OD-04.

Figure 73: Interior of OD-04.

### 6.4.5. OD-05 (?)

At this point there was a suspicious grouping of cobbles that have clearly been brought there for some reason. It is not clear what they represent but one possibility would be a grave (Figure 74). Some pieces of shale were also present. The rocks lie at the foot of the slope beneath trees and have become quite dispersed.

## 6.4.6. F196-01 (artefacts)

Here there are scattered ESA artefacts in a ploughed field. The artefacts are widespread but two concentrations were recorded (F196-01 and 02). At this point one possible biface was found but one face was only minimally retouched (lower right in Figure 75).



Figure 74: View of the group of cobbles at OD-05.



Figure 75: Selection of artefacts from F196-01. Scale in cm.

## 6.4.7. F196-02 (artefacts)

This is the second concentration of artefacts recorded along the southern margin of this field (Figure 76 & 77). Some bifacial pieces were found that include items classifiable as hand-axes (Figures 78 & 79)





Figure 76: View of the context at F196-01 and 02.

Figure 77: Artefacts at F196-02. Scale in cm.

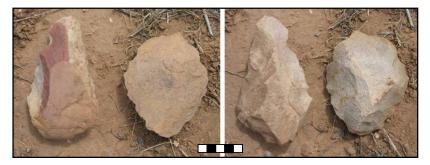




Figure 78: Opposite sides of two bifacial artefacts from F196-02. Scale in cm.

**Figure 79:** A hand-axe from F196-02. Scale in cm.

6.4.8. OD-06 (artefacts)

Here there was a very low density scatter of ESA artefacts in the side of an erosion gulley (Figure 80). Only three were seen.

6.4.9. OD-07 (graves)

This site is three formal graves but without headstones. The graves are of cement and are of one adult and two children (Figure 81). They are from the 20<sup>th</sup> century.



Figure 80: Artefacts from OD-06.



**Figure 81:** The three graves at OD-07. The farmhouse at OD-04 can be seen in the background.

#### 6.4.10. OD-08

In this eroding area were found a scatter of artefacts of variable age. Included were a flake with a faceted platform that is likely from the Middle Stone Age as well as several other artefacts that could be either MSA or LSA. Some historical material was also present in the form of glass, stone ware and other fragments of white ceramics (Figure 82).



Figure 82: Artefacts from OD-08.

Site	Age	Content*	Location	Significance	Mitigation**
Site A					
BD-01	Cultural landscape	'Tree' line	S34 02 48.3 E21 43 44.1	Low	No
BD-02	Historical	Graveyard	S34 02 26.1 E21 43 59.4	Very high	Avoid
BD-03	Historical & Stone Age	Artefacts & structures	S34 02 23.8 E21 44 00.2	Very low & High	No
BD-04	?Historical	?	S34 02 33.4 E21 43 53.9	?	?
BD-05	Historical	Grave	?	Very high	No
Site B					
MD-01	LSA	Artefacts	S34 04 34.2 E21 43 18.6	Low	No
MD-02	LSA	Site	S34 04 34.3 E21 43 19.8	Medium	Yes (Permit)
MD-03	LSA	Site	S34 04 39.3 E21 43 17.7	Low	Yes (Permit)
MD-04	LSA	Site	S34 04 30.6 E21 43 20.1	Medium	Yes (Permit)
SD-01	LSA	Site	S34 04 27.9 E21 43 20.1	Low	No (Permit)
SD-02	LSA	Site	S34 04 25.5 E21 43 19.3	Low-medium	Yes (Permit)
SD-03	LSA	Site	S34 04 22.6 E21 43 17.4	Low	No (Permit)
SD-04	LSA	Site	S34 04 17.9 E21 43 17.0	Low	No (Permit)
SD-05	ESA & ?LSA	Artefacts	S34 04 17.7 E21 43 18.2	Low	No
SD-06	Historical	Structure	S34 04 18.5 E21 43 23.7	Low	No (Permit)
SD-07	MSA & LSA	Site	S34 04 12.8 E21 43 11.9	Low	No (Permit)
MD-05	LSA & Historical	Artefacts	S34 04 11.2 E21 42 52.9	Low	No
MD-06	Historical	Ruin	S34 04 11.0 E21 42 51.3	Medium	Yes (Permit)
MD-07	Historical	Ruins	S34 04 11.9 E21 42 49.4	Low	No
MD-08	Historical	Artefacts	S34 04 12.8 E21 42 50.7	Low	No
MD-09	Cultural landscape	Tree line	S34 04 25.0 E21 42 50.1	Low-medium	Avoid/retain
SD-08	Historical	Ruin	S34 04 01.2 E21 43 06.8	Low	No
Site D					
OD-01	Historical	Artefacts	S34 05 47.5 E21 45 04.9	Low	No
OD-02	Historical	Structure	S34 05 46.3 E21 45 05.1	Low-medium	Yes (Permit)
OD-03	Historical	Ruin	S34 05 47.3 E21 45 07.7	Medium-high	Yes (Permit)
OD-04	Historical	Structure	S34 05 50.8 E21 45 05.2	Low-medium	Yes (Permit)
OD-05	?	?	S34 05 53.3 E21 45 05.6	?	? ` ´
F196-01	ESA	Artefacts	S34 05 49.7 E21 44 45.0	Low	No
F196-02	ESA	Artefacts	S34 05 47.2 E21 44 45.8	Low	No
OD-06	ESA	Artefacts	S34 05 47.1 E21 45 09.6	Low	No
OD-07	Historical / recent	Graves	S34 05 43.1 E21 45 12.0	Very high	Avoid
OD-08	MSA, ?LSA & Historical	Artefacts	S34 05 41.2 E21 45 09.9	Low	No

Table 1: Summary of all heritage occurrences encountered at each of the four alternatives.

\* 'Artefacts' refers to a low density scatter, while 'site' refers to a higher concentration that was likely an occupation site. \*\* Note that 'None' could be due either to low significance or the fact that the site will not be impacted.

# 7. DISCUSSION OF IMPACTS AND MITIGATION

The vast majority of the finds reported on above will not be impacted by the proposed activities at any of the four alternative sites. They were recorded primarily to guide placement of the crossing structure in terms of a location where any required access roads are least likely to impact upon heritage. No impacts at all are foreseen within the confines of the river channel. Some discussion of impacts and mitigation requirements at each of the four sites follows.

## 7.1. Site A

Significant impacts are unlikely to be experienced at Site A. Any gap created in the line of aloes does not constitute and impact of any magnitude. The graveyard will be well out of the way of the proposed crossing and any access roads to it, while the grave with unknown location could pose a problem at a later stage of the project if the road, depending on whether the road gets rerouted or not. In terms of the river crossing though, it will not be affected. The only heritage feature potentially of concern is the stone pile alongside the road close to the river. There is a very slight chance of this being a grave but this is so small that it seems most prudent to assume it is not and simply be observant if the pile needs to be removed.

## 7.2. Site B

This location carries the most likelihood of impacting on heritage, although none is of high significance. Many of the Stone Age sites encountered along the eastern edge of the river would need some mitigation in the form of excavations to determine depth and content and then to sample them as required. While no permit could be issued for ephemeral scatters of artefacts, even some of those sites found here that do not require mitigation should have a destruction permit granted before they can be destroyed. On the opposite side of the river the ruined house appears larger than labourers cottage and thus was likely a primary farm residence at some stage. If this were to be destroyed then some research into its history and associations would need to be carried out prior to demolition being allowed. However, it is highly unlikely to fall within the path of the proposed crossing. The trees lining the road leading towards the river on the western side of the river should certainly be retained along the access road if this is to be reused for the new crossing. It seems unlikely that their removal would be required in any case.

## 7.3. Site C

No heritage was found in this area.

## 7.4. Site D

This site has a moderate likelihood of causing impacts to heritage, but only as far as the access road is concerned. While none of the artefact scatters require any mitigation, the historical structures and ruins would need further investigation if any are to be removed. Likewise the graves would need to be examined further before they could be moved. The graves are well away from the river crossing point but the structures and ruins are closer to it and could be affected, especially since no road down to the river exists at present.

None of the four sites will result in excessive visual impact and no scenic routes are affected by the proposed crossings.

# 8. CONCLUSIONS

- Site C is certainly the preferred location from the point of view of heritage.
- Site A would be the second best option, since the heritage likely to be impacted seems very insignificant.
- Sites B and D carry far greater potential for impacts to heritage. Site B would require archaeological mitigation, while Site A would require an HIA to determine the full significance of the farm complex.

Table 2 summarises the above.

Site	Heritage significance before mitigation	Heritage significance after mitigation	Mitigation requirements	Preference (1 = most preferred, 4 = least preferred)
А	Low*	Low	None	2
В	Low-Medium	Very Low	Phase 2 Archaeology (excavation)	3
С	Very low	Very low	None	1
D	Medium-High	Unknown (pending HIA)	Heritage Impact Assessment	4

 Table 2: Summary of overall heritage significance per development option.

\* This assumes BD-04 is not a grave.

# 9. RECOMMENDATIONS

Subject to the approval of Heritage Western Cape, the following recommendations pertain to each site if chosen:

- Site A: The project should be allowed to proceed with no further heritage work provided that care is taken when removing the stones at BD-04 just in case of anything present beneath and that all other heritage (excluding the aloes) are protected during construction;
- Site B: The project can only be allowed to proceed if none of the recorded sites are to be impacted. Otherwise archaeological mitigation and/or an application for a destruction permit will need to be carried out prior to commencement;
- Site C: The project should be allowed to proceed with no further work required; and
- Site D: The project can only proceed if none of the recorded graves, structures and ruins will be affected. Otherwise an HIA will need to be conducted in order to determine full significance of these finds.

#### **Declaration of independence:**

I, Jayson Orton, am an independent specialist consultant who is in no way connected with the proponent, other than in terms of the delivery of consulting services.

I hold a Masters degree and have been consulting since 2004 in the Northern and Western Cape Provinces. I am an accredited Principal Investigator with the Association of Southern African Professional Archaeologists (ASAPA).