

**A SURVEY OF CULTURAL RESOURCES IN THE
PROPOSED JANETSI DAM SITE, LETABA RIVER**

For:

CONSULTBURO
P.O. Box 20120
ALKANTRANT
0005

Survey conducted and report prepared by the:

NATIONAL CULTURAL HISTORY MUSEUM
P.O. Box 28088
SUNNYSIDE
0132

Telephone - (012) 3411320
Telefax - (012) 3416146

REPORT: 96KH05

Date of survey: July 1996

Date of report: September 1996



SUMMARY

A survey of cultural resources in the proposed Janetsi dam site, Letaba river

A survey to establish the nature, extent and significance of cultural resources was made in the area of the proposed Janetsi dam, located at the confluence of the Groot Letaba, Nwanetzi and Hlangana rivers, Northern Province.

No sites, objects or structures of archaeological, historical and cultural importance that will be impacted upon by the development of the dam to such an extent that it will prevent the building of the dam, or require modification of the project design, were found within the area of the proposed development.

A number of recommendations, however, are put forward in Section 7 of this report.

CONTENTS

SUMMARY/OPSOMMING	i
CONTENTS	ii
1. AIMS OF THE SURVEY	1
2. TERMS OF REFERENCE	1
3. CONDITIONS AND ASSUMPTIONS.....	1
4. METHODOLOGY	2
5. DESCRIPTION OF THE AREA SURVEYED.....	3
6. DISCUSSION	5
7. CONCLUSIONS AND RECOMMENDATIONS.....	7
8. REFERENCES	8
9. PROJECT TEAM	8
APPENDIX 1.....	9
APPENDIX 2.....	10
APPENDIX 3.....	16
APPENDIX 4.....	17

A SURVEY OF CULTURAL RESOURCES IN THE PROPOSED JANETSI DAM SITE, LETABA RIVER

1. BACKGROUND

It is proposed to build a dam wall downstream of the confluence of the Letaba, Nwanetzi and Hlangana rivers, Letaba 1 district, Northern Province. The Museum was requested by **Consultburo** to survey this area, with the aim to locate, identify, evaluate and document sites, objects and structures of archaeological, historical and cultural importance within the boundaries of the proposed dam.

2. TERMS OF REFERENCE

The **Terms of Reference** for this study are

- 2.1 Identify all sites, occurrences and structures of archaeological and historical nature (cultural resources) located on the proposed site.
- 2.2 Assess the significance of all the cultural resources in terms of their historical, social, religious, aesthetic and scientific value.
- 2.3 Describe the possible impact of the proposed development on these cultural remains according to a standard set of conventions.
- 2.4 Propose suitable mitigation measures to minimise possible negative impacts on the cultural resources.

3. CONDITIONS AND ASSUMPTIONS

The following aspects have direct bearing on the survey and the resulting report:

- **Cultural resources** are taken to include all non-physical and physical man-made as well as natural occurrences that are associated with human activity. These include all sites, structures and artifacts of importance, either individually or in groups, in the history, architecture and archaeology of human (cultural) development.
- The **significance** of the sites and artifacts is determined by means of their

historical, social, aesthetic and scientific values in relation to their uniqueness, condition of preservation and research potential. It must be kept in mind that these various aspects are not mutually exclusive and that the evaluation of any site is done with reference to any number of these.

- Significance is site specific and related to the content and context of that site. Those sites regarded as having low significance have already been recorded in full and require no further mitigation. Sites with medium to high significance require further mitigation.
- The latitude and longitude of an archaeological site is to be treated as sensitive information by the developer and should not be disclosed to members of the public.
- All recommendations are made with reference to the **National Monuments Act, Act 28 of 1969**, as amended.

4. METHODOLOGY

4.1 Preliminary investigation

4.1.1 Survey of the literature

A survey of all relevant literature was conducted with the aim of reviewing the previous research done and determining the potential of the area. In this regard various anthropological, archaeological and historical sources were consulted -see list of references.

4.1.2 Data sources

The **Archaeological Data Recording Centre (ADRC)**, housed at the National Cultural History Museum in Pretoria, was consulted.

4.1.3 Other sources

The relevant topocadastral and other maps were studied.

4.2 Field survey

The next step was to visit the area to be surveyed. The survey was conducted according to generally accepted archaeological practices, and was aimed at locating all possible sites, objects and structures. This was done by dividing the whole area into blocks, making use of natural and manmade topographical elements. Within each block, all areas considered to have a potential for human use were investigated. Special attention was given to outcrops, cliffs were inspected for rock shelters, while stream beds and unnatural topographical occurrences such as trenches, holes and clusters of exotic (and indigenous) trees were investigated.

4.3 Documentation

All sites, objects and structures identified were documented according to the general minimum standard accepted by the archaeological profession. The specific coordinates of the locality were determined by means of the **Global Positioning System (GPS)**¹ and plotted on a map. This information was added to the description to facilitate the identification of each locality if the proposed development takes place.

4.4 Presentation of the information

In discussing the results of the survey, a chronological rather than a geographical approach is taken. This presents an overview of human occupation and land use in the area to the reader and thus helps to better understand and facilitate the potential impact of the development.

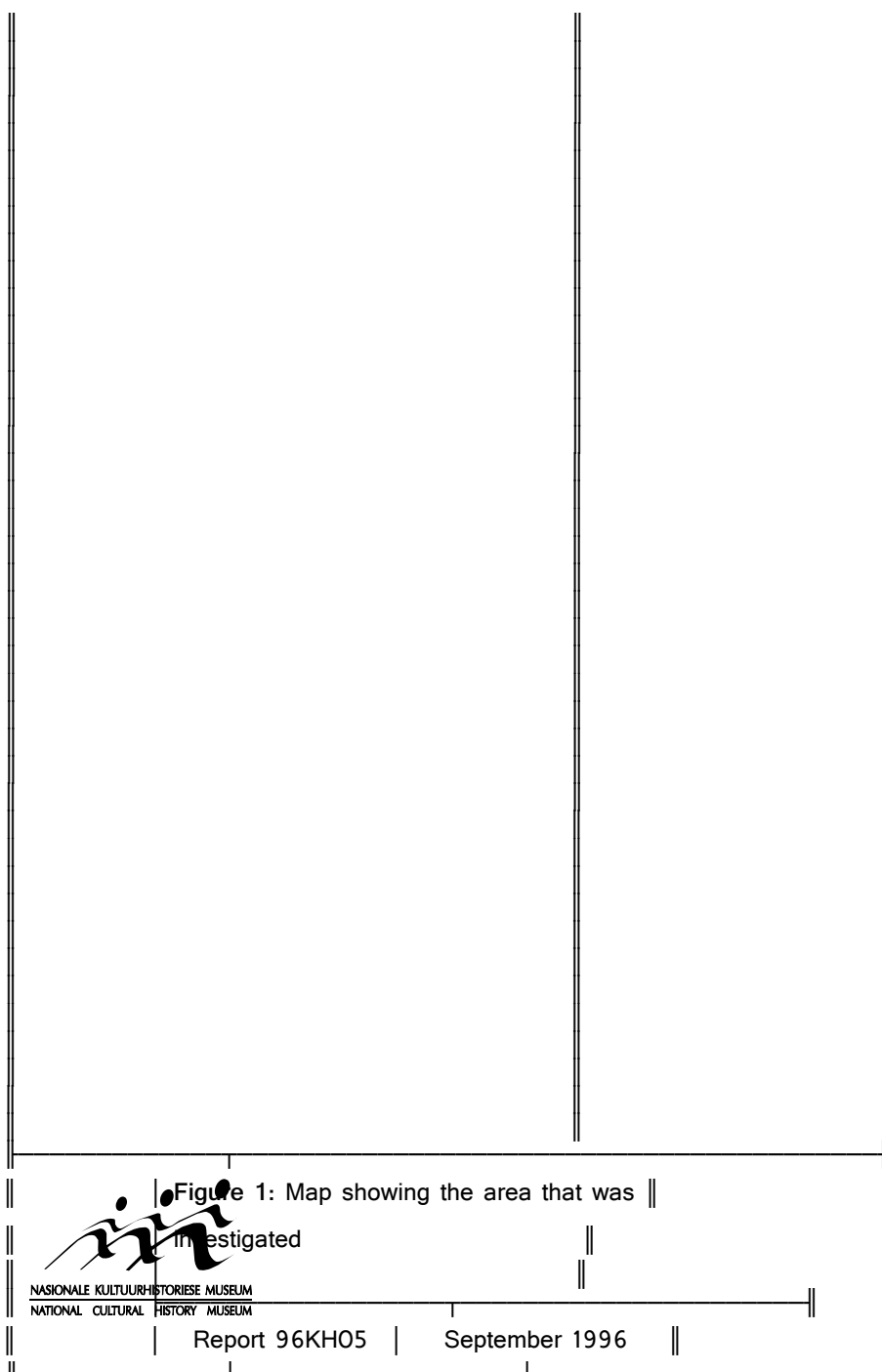
5. DESCRIPTION OF THE AREA SURVEYED

The area surveyed is located on the farms Mamitwa 461LT, Mamitwaskop 462LT, Janetsi 463LT, Lamotte 464LT, La Gratitude 513LT, Riverside 514LT, Laborie 515LT, Nagude 517LT, Belle Ombre 518LT, The Plains 519LT and Delhi 520LT, as indicated on the map in Fig. 1.

Three geological formations are found in the area. The largest of these belongs to the Swazian Erathem and is known as the Goudplaats Gneiss. This is a grey biotite gneiss and migmatite with anatectic mobilisates and is of considerable age. The second formation, found in the area of Mamitwa 461LT, is a younger intrusive leucocratic biotite granite, belonging to the Vaalian Erathem. The third formation consists of bands of ultramafic schist, amphibolite and magnetite quartzite, of the Mothiba formation of the Pietersburg Group of the Murchison Sequence of the Swazian Erathem.

The vegetation of the area surveyed, is classified by Acocks (1975:30) as Arid Lowveld. This is typically an *Acacia nigrescens/Sclerocarya* savanna with *Digitaria* sp. as the most dominant grass. In the northern parts this veld provides an easy transition to Mopani veld. A feature of this veld is the dense, low thickets which occur along watercourses.

¹ According to the manufacturer a certain deviation may be expected for each reading. Care was, however, taken to obtain as accurate a reading as possible, and then correlate it with reference to the physical environment before plotting it on the map.



Large sections of the area surveyed are, from an archaeological perspective, disturbed by agricultural activities such as fields and orchards. In most cases the soil is disturbed to a depth of as much as 0,50 metre, effectively destroying or moving out of context any surface indicators - see below.

Large areas are also covered with sickle bush (*Dichrostachys cinerea*), which forms secondary growth on impoverished ground and is taken as an indication of

over grazing. In many areas it forms impenetrable thickets, making a survey of this nature very difficult.

6. DISCUSSION

In this section, the results of the survey are presented. A total of 18 sites have been identified and are discussed in Appendix 2 and summarised in Table 1.

6.1 Stone Age (Appendix 3)

A number of sites with Early, Middle and Late Stone Age artifacts were found. All of these sites are open surface sites (in contrast to stratified sites in shelters). In some cases the artifacts are disturbed completely out of contexts due to agricultural or road making activities. A case in point is the large number of bored stones that were ploughed out near the Letaba river on the farm Riverside of Mr J Barnard.

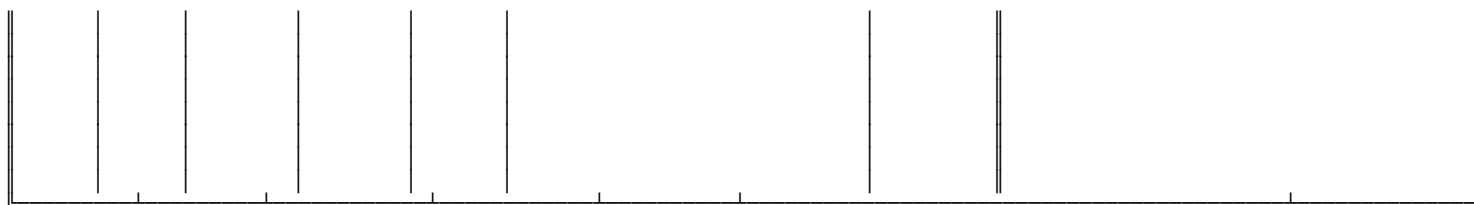
6.2 Iron Age (Appendix 3)

Though some Early Iron Age pottery was identified, with the exception of one site, it was usually not enough to make a statement of significance. Most of the Iron Age material found, dates to the later part of the Late Iron Age. As with the Early material, very little was found. That the area had had more potential, is evidenced by statements by a number of farmers claiming to have ploughed up Iron Age remains when making fields or orchards, eg. Mr W Miller.

Clay pots were found buried in many of the large, older ant-hills. The reason for this was that the local people harvested the termites as food. A hole is dug into the ant-hill and then covered with leaves and twigs. As the termites emerge because of the broken ant-hill they try to fly, but are prevented from doing so by the leaves and twigs. They shed their wings and are trapped in the pot to be collected by the owner of the trap (see also Junod II 1927:81-82). Though some of the clay pots found have decorations similar to earlier Late Iron Age pottery, a three legged cast iron pot was also found used in an ant-hill in similar manner. This proves the long history of this activity.

Table 1: Summary of impact description and assessment at Janetsi Dam site (see Appendix 2)

Site no.	Type of site	Significance of impact	Certainty of prediction	Status of impact	Recommended management action	Legal requirement
D2330CD3	Historic	Low	Possible	Negative	Relocation of possible graves	Dept of Health
D2330CD4	Iron Age	Low	Definite	Positive	Test excavation	NMC permit
D2330CD5	Historic	Low	Definite	Negative	Relocation of grave	Dept of Health
D2330CD6	Iron Age	Low	Possible	Positive	Test excavation	NMC permit
D2330CD7	Stone Age	Low	Definite	Positive	Surface collection of artifacts	NMC permit
D2330CD8	Iron Age	Low	Definite	Neutral	None	
D2330CD9	Iron Age	Low	Definite	Neutral	None	
D2330CD10	Iron Age	Low	Definite	Neutral	None	
D2330CD11	Iron Age	Low	Definite	Neutral	None	
D2330CD12	Stone Age	Low	Definite	Neutral	None - see site D2330CD7	
D2330CD13	Iron Age	Low	Definite	Neutral	None	
D2330CD14	Stone Age	Low	Definite	Positive	Surface collection and test excavation	NMC permit
D2330CD15	Iron Age	Low	Definite	Neutral	None	
D2330CD16	Iron Age	Low	Definite	Neutral	None	
D2330CD17	Historic	Low	Definite	Neutral	None	
D2330CD18	Iron Age	Low	Definite	Neutral	None	
D2330CD19	Iron Age	Low	Definite	Neutral	None	
D2330CD20	Historic	Low	Definite	Negative	Relocation of graves	Dept of Health
D2330CD21	Iron Age	Low	Definite	Positive	Test excavation	NMC permit



6.3 Historical (Appendix 3)

Except for a number of sites containing graves, no other sites of historical significance were located.

The graves are not war graves and do not have headstones older than 50 years. As such they do not fall under the jurisdiction of the War Graves Commission or the National Monuments Act. Relocation of the contents of these graves therefore becomes a matter of obtaining permission from descendants (directly), or by advertising in the newspapers about the pending move. This is followed by permission from the Department of Health of the relevant province, as well as permission from the premier of that province. A commercial firm of undertakers can then relocate the graves to a mutually agreed site.

7. CONCLUSIONS AND RECOMMENDATIONS

There are no known sites, objects or structures of archaeological, cultural or historical significance in the area that will be impacted upon by the proposed development of the dam to such an extent that this will prevent the building of the dam or require modification of the project design. However, the following recommendations are made:

7.1 Money should be made available to collect some of the abundant Stone Age material (eg. site D2330CD7, D2330CD12 & D2330CD14). This can be utilised in a number of ways, eg. at an information centre at the dam wall, the information centre at Hans Merensky Nature Reserve, or in small study boxes at local schools.

7.2 At least four sites, one Stone Age (D2330CD14) and three Iron Age (D2330CD4, D2330CD6 & D2330CD21), show some promise for future research. If development continues, it would be worth while to do some test excavations of these sites.

7.3 As quite a number of trees such as marula (*Sclerocarya caffra*) and Ficus sp. will eventually be drowned by the water, it is recommended that local craftspeople be given the opportunity to 'harvest' these trees. The relative soft wood of these trees is used in making craft articles such as bowls, milk pails, drums, etc. Harder wood such as red ivory (*Berchemia zeyheri*) and lead wood (*Combretum imberbe*) is used for making mortars and pestals.

7.4 Due to the dense vegetation, it is nearly impossible to detect all graves in the area. It is recommended that a short questionnaire be compiled and sent to all farmers in the area, who can, after consultation with their labourers, return the questionnaires to the client.

8. REFERENCES

8.1 Unpublished sources

8.1.1 Data base:

Archaeological Data Recording Centre, (former) Tvl section, National Cultural History Museum, Pretoria.

8.2 Published sources

8.2.1 Books and journals

Acocks, J.P.H. 1975. Veld Types of South Africa. Memoirs of the Botanical

Survey
of
South
Africa,
No. 40.
Pretoria:
Botanical
Research
Institute.

Barnard, C. (red.) 1975. Die Transvaalse Laeveld: kamee van 'n kontrei.

Kaaps
stad:
Tafelberg.

Bates, C.W. 1947. A preliminary report on archaeological sites on the Groot

Letaba
River,

nor
the
rn
Tra
nsv
aal.
Sou
th
Afr
ica
n
Jou
rna
l of
Sci
enc
e
43:
365
-
375
.

Evers, T.M. 1974. Three Iron Age research in the eastern Transvaal, South

Afr
ica.
Sou
th
Afr
ica
n
Arc
hae
olo
gic
al
Bul
leti
n
30:
71-
83.

Evers, T.M. 1982. Two Later Iron Age sites on Mabete, Hans Merensky Nature Reserve, Letaba District, N.E. Transvaal. South African Archaeological Bulletin 37:63-67.

Holm, S.E. 1966. Bibliography of South African Pre- and Protohistoric

Arc
hae
olo
gy.
Pre
tori
a:
J.L.
van
Sch
aik.

Junod, H.A. 1927. The Life of a South African Tribe, Vol. I & II. London:

Ma
cMi
llan
&
Co.

Mason, R. 1962. Prehistory of the Transvaal. Johannesburg: Witwatersrand

Uni
ver
sity
Pre
ss.

Van Riet Lowe, C. n.d. The distribution of Prehistoric rock engravings and

pai
nti
ngs
in
Sou
th
Afr
ica.
Arc
hae
olo
gic
al
Sur
vey
,
Arc
hae
olo
gic

al
Ser
ies
No.
7.

195
0.
Pre
tori
a:
Go
ver
nm
ent
Pri
nte
r.

Van Warmelo, N.J. 1977. Anthropology of Southern Africa in Periodicals to

8.2.2 Maps

- | | |
|----------------------------|--|
| 1:50 000 Topocadastral map | - 2330CB, 2330CD, 2330DA, 2330DC |
| 1:250 000 Geological map | - 2330 Tzaneen |
| 1:10 000 Ortho photographs | - 2330CD4, 2330CD5, 2330CD9, 2330CB24,
2330CB10, 2330CB25 |

9. PROJECT TEAM

J A van Schalkwyk - project leader

S Moifatswane - field assistant

S Smith - language editing

APPENDIX 1: STANDARDIZED SET OF CONVENTIONS USED TO ASSESS THE IMPACT OF PROJECTS ON CULTURAL RESOURCES

Significance of impact:

- low where the impact will not have an influence on or require to be significantly accommodated in the project design
- medium where the impact could have an influence which will require modification of the project design or alternative mitigation
- high where it would have a "no-go" implication on the project regardless of any mitigation

Certainty of prediction:

- Definite: More than 90% sure of a particular fact. Substantial supportive data to verify assessment

- Probable: Over 70% sure of a particular fact, or of the likelihood of that impact occurring
- Possible: Only over 40% sure of a particular fact, or of the likelihood of an impact occurring
- Unsure: Less than 40% sure of a particular fact, or the likelihood of an impact occurring

Status of the impact:

With mitigation and the resultant recovery of material, a negative impact can be turned positive. Describe whether the impact is positive (a benefit), negative (a cost) or neutral

Recommended management action:

For each impact, the recommended practically attainable mitigation actions which would result in a measurable reduction of the impact, must be identified

Legal requirements:

Identify and list the specific legislation and permit requirements which potentially could be infringed upon by the proposed project

APPENDIX 2: SURVEY RESULTS

[See Appendix 1 for definitions of the conventions used in assessing of the cultural remains]

1. Site number: D2330CD3

Description: Possible graves, marked by a clump of indigenous and exotic trees (seringa - *Melia azedarach* L) in an orchard.

Location: Janetsi 463LT: 23°45'12" S; 30°28'31" E [X 2627848.786; Y 53494.638]

Discussion: According to local oral tradition, as recounted by farm labourers, some graves of the people of Segobela are located here. It is, however, impossible to state definitely if these are graves without excavation taking place.

Significance of impact: Low

Certainty of prediction: Possible

Status of impact: Negative

Recommended management action: This particular site falls on the edge of the area that will be flooded and should be kept in mind. If the oral tradition proves true (eg. by test excavation), the graves should be relocated.

2. Site number: D2330CD4

Description: Some potsherds and small pieces of magnetite eroding out on the bank of the river. MSA artifacts are also found on the same site.

Location: Janetsi 463LT: 23°45'41" S; 30°26'31" E [X 2628753.882; Y 56889.495]

Discussion: The pottery found here, though very fragmented, seems to be of recent origin. The pottery is exposed due to erosion and it is therefore difficult to judge the extent of the site. It might be that the largest section of the site is still under grass cover, which make detection difficult.

Significance of impact: Low

Certainty of prediction: Definite

Status of impact: Neutral

Recommended management action: It is suggested that a test trench be excavated according to archaeological principles in a section of the river bank that is not eroded, in order to fully establish the extent and significance of this site.

3. Site number: D2330CD5

Description: Grave, marked by circle of stones, next to old settlement site.

Location: Janetsi 463LT: 23°45'15" S; 30°27'28" E [X 2627947.770; Y 55278.422]

Discussion: This grave is still being visited by descendants of the people buried here. It is located next to an old living site that was abandoned by the people some years prior to 1985, when they were relocated to the so-called Trust area.

Significance of impact: Low

Certainty of prediction: Definite

Status of impact: Negative

Recommended management action: If the dam is built, this graves will have to be relocated by a professional undertaker. This is a matter of obtaining permission of descendants (directly), or advertising in the newspapers about the pending move.

This is followed by permission from the Department of Health of the relevant province, as well as permission from the premier of that province. The work is usually undertaken by a professional firm of undertakers. The status of the impact is viewed as negative, as it will cost money for these actions to take place.

4. Site number: D2330CD6

Description: Potsherds exposed by erosion, some showing EIA characteristics.

Location: Janetsi 463LT: 23°45'31" S; 30°27'46" E [X 2628438.061; Y 54766.813]

Discussion: It seems as if the biggest part of the site is still under thick vegetation, making the detection of extent and significance difficult.

Significance of impact: Low

Certainty of prediction: Possible

Status of impact: Positive

Recommended management action: It is suggested that a test trench be excavated here. For this a valid permit from the NMC will be necessary.

5. Site number: D2330CD7

Description: Large open site containing ESA and MSA artifacts: tool, cores and flakes.

Location: La Motte 464LT: 23°47'05" S; 30°28'21" E [X 2631326.179; Y 53764.934]

Discussion: Being an open site, the artifacts are in all probability disturbed from their original context, though less so than with the previous site. However, the large number of artifacts found here indicate that this is a site of some significance.

Significance of impact: Low

Certainty of prediction: Definite

Status of impact: Positive

Recommended management action: Funds should be made available for the systematic collection of material on the site to retrieve any possible information with regard to spatial distribution, etc. For this a permit from the NMC will have to be obtained. The artifacts can be used in educational programmes at local schools. This contribution to 'science' and education determines that the status of the impact is viewed as positive.

6. Site number: D2330CD8

Description: Potsherds eroding from the side of an ant-hill.

Location: La Motte 464 LT: 23°47'02" S; 30°28'27" E [X 2631233.259; Y 53595.399]

Discussion: Remains of a pot buried in an ant-hill, used for trapping termites as a source of food.

Significance of impact: Low

Certainty of prediction: Definite

Status of impact: Neutral

Recommended management action: None necessary as the site is already fully documented.

7. Site number: D2330CD9

Description: Some EIA pottery eroding out in road.

Location: La Motte 464LT: 23°46'49" S; 30°28'44" E [X 2630831.549; Y 53115.545]

Discussion: A few scattered pieces of pottery. From the decorations it seems as if they belong to the EIA. There are, however, too few to make a statement of significance.

Significance of impact: Low

Certainty of prediction: Definite

Status of impact: Neutral

Recommended management action: None necessary as the site is already fully documented.

8. Site number: D2330CD10

Description: A few scattered potsherds.

Location: La Motte464LT: 23°46'54" S; 30°28'35" E [X 2630986.307; Y 53369.802]

Discussion: A few pieces of pottery, possibly belonging to a single vessel. No further context could be determined from which a statement of significance could be made.

Significance of impact: Low

Certainty of prediction: Definite

Status of impact: Neutral

Recommended management action: None necessary as the site is already fully documented.

9. Site number: D2330CD11

Description: Some pottery exposed by erosion in the road.

Location: La Motte464LT: 23°45'43" S; 30°28'39" E [X 2628801.638; Y 53264.578]

Discussion: A few pieces of pottery, possibly belonging to a single vessel. No further context could be determined from which a statement of significance could be made.

Significance of impact: Low

Certainty of prediction: Definite

Status of impact: Neutral

Recommended management action: None necessary as the site is already fully documented.

10. Site number: D2330CD12

Description: Pottery exposed by erosion on the side of an ant-hill.

Location: La Motte464LT: 23°46'19" S; 30°28'01" E [X 2629913.141; Y 54336.499]

Discussion: Remains of a pot buried in an ant-hill, used for trapping termites as a source of food.

Impact: Low

Significance of impact: Low

Certainty of prediction: Definite

Status of impact: Neutral

Recommended management action: None necessary as the site is already fully documented.

11. Site number: D2330CD13

Description: Some ESA and MSA material - artifacts, cores and flakes - eroding out in small donga.

Location: La Motte464LT: 23°46'28" S; 30°29'10" E [X 2630182.882; Y 52381.724]

Discussion: It seems as if some of this material is still in situ, in other words, this is still a primary ESA/MSA site.

Significance of impact: Low

Certainty of prediction: Definite

Status of impact: Positive

Recommended management action: A detailed survey of this site should be done. It is also suggested that some test excavations take place.

12. Site number: D2330CD14

Description: Pot found in ant hill.

Location: La Motte 464 LT: 23°46'50" S; 30°28'31" E [X 2630863.668; Y 53483.510]

Discussion: Pot used for trapping termites.

Significance of impact: Low

Certainty of prediction: Definite

Status of impact: Neutral

Recommended management action: None necessary as the site is already fully documented.

13. Site number: D2330CD15

Description: Open site containing MSA artifacts: tools, cores and flakes.

Location: Riverside 514 LT: 23°47'17" S; 30°28'01" E [X 2631697.357; Y 54301.493]

Discussion: As this is an open site and a road was made through it, most of the material is in all probability disturbed out of context.

Significance of impact: Low

Certainty of prediction: Definite

Status of impact: Neutral

Recommended management action: No mitigation necessary as the site is already fully documented. If, however, the neighbouring site (no. 5 - D2330CD7) is to be mitigated, this one can be done at the same time. It is suggested that the material on the surface is collected and used in educational programmes at local schools. For this, a permit from NMC will be needed.

14. Site number: D2330CD16

Description: Small scatter of MSA artifacts; and some pieces of pottery exposed by erosion, possibly belonging to a single vessel.

Location: Mamitwa 461 LT: 23°45'20" S; 30°25'17" E [X 2628116.208; Y 58987.655]

Discussion: An open site, with very little context.

Significance of impact: Low

Certainty of prediction: Definite

Status of impact: Neutral

Recommended management action: None necessary as the site is already fully documented.

15. Site number: D2330CD17

Description: Foundation of rectangular structure.

Location: Mamitwa 461 LT: 23°45'26" S; 30°25'14" E [X 2628301.140; Y 59071.861]

Discussion: Homestead of recent origin, possibly of a farm labourer.

Significance of impact: Low

Certainty of prediction: Definite

Status of impact: Neutral

Recommended management action: None necessary as the site is already fully documented.

16. Site number: D2330CD18

Description: Some pottery exposed by erosion in the road.

Location: Mamitwa 461LT: 23°45'36" S; 30°25'16" E [X 2628608.552; Y 59013.970]

Discussion: A few pieces of pottery, possibly belonging to a single vessel. From the decorations it is determined that it is of recent origin. No further context could be determined from which a statement of significance could be made.

Significance of impact: Low

Certainty of prediction: Definite

Status of impact: Neutral

Recommended management action: None necessary as the site is already fully documented.

17. Site number: D2330CD19

Description: A few scattered potsherds.

Location: Mamitwa 461LT: 23°45'04" S; 30°25'29" E [X 2627622.602; Y 58649.814]

Discussion: A few pieces of pottery, possibly belonging to a single vessel. No further context could be determined from which a statement of significance could be made.

Significance of impact: Low

Certainty of prediction: Definite

Status of impact: Neutral

Recommended management action: None necessary as the site is already fully documented.

18. Site number: D2330CD20

Description: Graves, marked by stones and grave goods.

Location: Laborie 515LT: 23°46'19" S; 30°29'35" E [X 2629903.403; Y 51674.837]

Discussion: These graves seem to be of recent origin as the site is cleared of vegetation, implying that it is still 'used' by the people. Three definite grave were identified.

Significance of impact: Low

Certainty of prediction: Definite

Status of impact: Negative

Recommended management action: If the dam is built, these graves will have to be relocated by a professional undertaker. This is a matter of obtaining permission of descendants (directly), or advertising in the newspapers about the pending move. This is followed by permission from the Department of Health of the relevant province, as well as permission from the premier of that province. The work is usually undertaken by a professional firm of undertakers. The status of the impact is viewed as negative, as it will cost money for these actions to take place.

19. Site number: D2330CD21

Description: Potsherds showing EIA characteristics, faunal material and grinding

stones.

Location: The Plains 519LT: 23°51'20" S; 30°24'22" E [X 2639197.848; Y 60498.880]

Discussion: This could have been a site worth excavating. It was, however, largely destroyed since it is now located in an orchard. It might still be possible to find remnants of the original deposit in between the trees and suitable pottery and charcoal samples can be retrieved.

Significance of impact: Low

Certainty of prediction: Definite

Status of impact: Positive

Recommended management action: Test excavations to be carried out if the dam is built. This contribution to science determines that the status of the impact is viewed as positive.

APPENDIX 3: GLOSSARY

This section is included to give the reader some necessary background. It must be kept in mind, however, that these dates are all relative and serve only to give a very broad framework for interpretation.

STONE AGE

Early Stone Age	1 500 000 - 150 000 Before Present
Middle Stone Age	150 000 - 30 000 BP
Late Stone Age	30 000 - until c. AD 200

IRON AGE

Early Iron Age	AD 200 - AD 1000
Late Iron Age	AD 1000 - AD 1830

HISTORICAL PERIOD

Since the arrival of the white settlers - c. AD 1830 in this part of the country

APPENDIX 4: ARCHAEOLOGICAL SITES IN A 25 KM RADIUS OF THE PROPOSED JANETSI DAM SITE

The following is a list of known archaeological sites in the vicinity of the proposed development, but outside the area of investigation. It is based on information contained in the Archaeological Data Recording Centre (ADRC) housed at the Museum and sites found during the current survey. Other sites might also be contained in different data bases. This serves as an indication of the high frequency of archaeological sites in the area. Future land use patterns, eg. rerouting of roads or relocating of settlements that arise due to the proposed development, might therefore have an impact on unknown sites in the area.

0135:	D2330DA4 - Deeside 733LT	- Stone Age: Early
0045:	D2330CD1 - Novengilla 562LT	- Stone Age: Middle
* ²	D2330CD21 - Mamitwaskop 462LT	- Stone Age: Late
0058:	D2330CD2 - The Neck 565LT	- Iron Age: Late
0132:	D2330DA1 - Eiland 725LT	- Iron Age: Late
0133:	D2330DA2 - Mabete 726LT	- Iron Age: Late
0134:	D2330DA3 - Mabete 726LT	- Iron Age: Late
0458:	D2330DC1 - Maranda 675LT	- Iron Age: Late
0147:	D2430BA2 - Harmony 140KT	- Iron Age: Late
0154:	D2430BA1 - Harmony 140KT	- Iron Age: Late
*	D2330CD22 - Janetsi 463LT	- Historical
*	D2330CD23 - Janetsi 463LT	- Historical

² These site have not yet been added to the ADRC.