
**HERITAGE IMPACT ASSESSMENT OF WESTERN AQUEDUCT,
GREATER DURBAN METRO,
KWAZULU-NATAL, SOUTH AFRICA**



Assessment and report by



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Management summary

eThembeni Cultural Heritage was appointed by Knight Piésold to undertake a heritage impact assessment of the proposed Western Aqueduct in the Greater Durban Metro area, in terms of the KwaZulu-Natal Heritage Act No 10 of 1997. eThembeni staff members inspected the area on 22 August 2006 and completed a controlled-exclusive surface survey, as well as a database and literature search.

We identified no heritage resources of significance that will be affected by the proposed development. The landscape is extremely variable and will not be affected negatively in the long term by this linear development.

We recommend that this project may proceed with no further heritage resource mitigation and have submitted this report to Amafa aKwaZulu-Natali in fulfilment of the requirements of the KwaZulu-Natal Heritage Act. The client may contact Ms Elize Becker at Amafa's Pietermaritzburg office (telephone 033 3946 543) in due course to enquire about the Council's decision.

If permission is granted for the development to proceed, the client is reminded that the Act requires that a developer cease all work immediately and notify Amafa aKwaZulu-Natali should any heritage resources, as defined in the Act, be discovered during the course of development activities.

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Introduction and legislation

eThembeni Cultural Heritage was appointed by Knight Piésold to undertake a heritage impact assessment of the proposed Western Aqueduct, in terms of the KwaZulu-Natal Heritage Act No 10 of 1997. Section 27(1) of the Act requires such an assessment in case of:

- (a) construction of a road, wall, power line, pipeline, canal or other similar form of linear development or barrier exceeding 300 m in length;
- (b) construction of a bridge or similar structure exceeding 50 m in length; and
- (c) any development, or other activity which will change the character of an area of land, or water –
 - (i) exceeding 10 000 m² in extent;
 - (ii) involving three or more existing erven or subdivisions thereof; or
 - (iii) involving three or more erven, or subdivisions thereof, which have been consolidated within the past five years; or
- (d) the costs of which will exceed a sum set in terms of regulations; or
- (e) any other category of development provided for in regulations.

A heritage impact assessment is not limited to archaeological artefacts, historical buildings and graves. It is far more encompassing and includes intangible and invisible resources such as places, oral traditions and rituals. In the KwaZulu-Natal Heritage Act 1997 a heritage resource is defined any place or object of cultural significance i.e. of aesthetic, architectural, historical, scientific, social, spiritual, linguistic or technological value or significance. This includes the following wide range of places and objects:

- (a) places, buildings, structures and equipment;
- (b) places to which oral traditions are attached or which are associated with living heritage;
- (c) historical settlements and townscapes;
- (d) landscapes and natural features;
- (e) geological sites of scientific or cultural importance;
- (f) archaeological and palaeontological sites;
- (g) graves and burial grounds, including -
 - (i) ancestral graves,
 - (ii) royal graves and graves of traditional leaders,
 - (iii) graves of victims of conflict,
 - (iv) graves of important individuals,
 - (v) historical graves and cemeteries older than 60 years, and
 - (vi) other human remains which are not covered under the Human Tissues Act, 1983 (Act No.65 of 1983 as amended);
- (h) movable objects, including -
 - (i) objects recovered from the soil or waters of South Africa including archaeological and palaeontological objects and material, meteorites and rare geological specimens;
 - (ii) ethnographic art and objects;
 - (iii) military objects;
 - (iv) objects of decorative art;
 - (v) objects of fine art;
 - (vi) objects of scientific or technological interest;
 - (vii) books, records, documents, photographic positives and negatives, graphic, film or video material or sound recordings; and
 - (viii) any other prescribed categories,but excluding any object made by a living person;
- (i) battlefields;
- (j) traditional building techniques.

A 'place' is defined as:

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

'Structures' means any building, works, device, or other facility made by people and which is fixed to land and any fixtures, fittings and equipment associated therewith older than 60 years.

'Archaeological' means -

- (a) material remains resulting from human activity which are in a state of disuse and are in or on land and are older than 100 years, including artefacts, human and hominid remains and artificial features and structures;
- (b) rock art, being a form of painting, engraving or other graphic representation on a fixed rock surface or loose rock or stone, which was executed by human agency and is older than 100 years including any area within 10 m of such representation; and
- (c) wrecks, being any vessel or aircraft, or any part thereof, which was wrecked in South Africa, whether on land or in the maritime cultural zone referred to in section 5 of the Maritime Zones Act 1994 (Act 15 of 1994), and any cargo, debris or artefacts found or associated therewith, which are older than 60 years or which in terms of national legislation are considered to be worthy of conservation;
- (d) features, structures and artefacts associated with military history which are older than 75 years and the sites on which they are found.

'Palaeontological' means any fossilised remains or fossil trace of animals or plants which lived in the geological past, other than fossil fuels or fossiliferous rock intended for industrial use, and any site which contains such fossilised remains or trace.

'Grave' means a place of interment and includes the contents, headstone or other marker of and any other structures on or associated with such place.

Project proposal

eThekweni Water Services (EWS) have recognised the need to meet the predicted water demands of consumers within the eThekweni Metropolitan boundary. To achieve this EWS proposes to implement the construction of a new bulk water pipeline from Cato Ridge to Inanda and Pinetown, supplying Durban and surrounds with gravity-fed potable water. The pipeline will tie into Umgeni Water's existing bulk water infrastructure beyond the municipal boundary, which receives potable water from the Midmar Dam system. The proposed pipeline will consist of a steel pipe of varying diameters, and will be named the 'Western Aqueduct'.

The Western Aqueduct will commence at the eThekweni Metropolitan boundary at Cato Ridge, known as "Point M", and will terminate in the Mount Moriah Reservoir complex in Pinetown. The pipeline will break pressure at a new reservoir to be constructed in the Gilletts area. Two secondary bulk potable water pipelines will be constructed off the Western Aqueduct to supply areas to the north and south. The Northern pipeline will commence in the Wyebank area, following a route through the uMngeni River valley, before terminating in the NR5 Reservoir complex in Ntuzuma. The Southern pipeline will commence in Kloof and follow Hagarth and Stockville Roads down to the N3 highway before terminating in the M1B Reservoir in Tshelmnyama.

The current water supply to the high lying areas of the eThekweni Municipality's jurisdiction relies heavily on the pumping systems located at the Durban Heights water works. These pumping systems are not only costly to operate and maintain, but also insufficient to meet the growing water demands. They would require refurbishment if the Municipality were to continue their use, but would still not be sufficient in the long term. The Western Aqueduct, being a gravity fed system, will not only secure the future water demands for the area but will also significantly reduce the cost of having to pump water into the high level reservoir system.

For environmental assessment purposes the pipeline route has been broken up into the following study areas:

- A. "Point M" at Cato Ridge to Kassier Drive, Shongweni.
- B. Kassier Drive to Mount Moriah Reservoir complex in Pinetown.
- C. Kloof to the M1B Reservoir in Tshelmnyama.
- D. Wyebank area through the Umgeni valley to the NR5 Reservoir in Ntuzuma.

A. "Point M" to Kassier Drive

Section A of the pipeline will connect into the existing Umgeni Water pipeline at Point M situated to the west of Cato Ridge and to the south of the N3 highway. The route will follow the road reserve boundaries through Cato Ridge before passing under the main Gauteng – eThekweni railway line to

the east of Cato Ridge. Thereafter the route will generally follow the cadastral boundary to the south of the N3 highway before passing under the N3 via the existing Inchanga service road underpass. The pipe will then enter the existing pipeline servitude to the northeast of the Inchanga railway station. This 15.24 metre wide servitude was proclaimed in the 1960s for the existing pipeline between Umlaas Road and Alverstone Nek. The proposed route will continue from this point to Kassier Drive.

The pipe of Section A will be approximately 1000mm in diameter and approximately 21 kilometres in length. The following reservoirs will be supplied along the route: Georgedale, Cato Ridge, Hammarsdale, Alverstone Nek, Summerveld and Westriding.

B. Kassier Drive to Mount Moriah Reservoir

Section B of the pipeline will cross Kassier Road via a pipe jacked sleeve and will continue in the existing servitude for approx 1.9 kilometres before entering the road reserves of Hillcrest. The affected roads will be Emoyeni Drive, Hospital Road, Tunzini Road, Shongweni Road, Old Main Road and Stonewall Road. The pipe will then enter the existing railway servitude adjacent to the rail bridge over Stonewall Road and continue within the reserve until breaking pressure in the proposed new reservoir in the vicinity of the M13 / Hillcrest on and off ramps. The pipe will then exit the new reservoir and follow the rail reserve through Gillitts and Kloof before entering Pioneer Road. The proposed route will leave the rail reserve at a few critical points for short distances and will run parallel to the reserve boundary before returning to the rail reserve. The route will then follow existing road reserve boundaries through to the Mount Moriah Reservoir in Pinetown. The affected roads will be Pioneer Road, Wyebank Road, Glamis Avenue, Hilmer Street, Alfred Road, Birkshire Road, Shepstone Road and Blair Athol Drive. The pipe will then enter the New Germany Nature Reserve before terminating in the Mount Moriah Reservoir.

Section B will have a pipe of approximately 1000 mm in diameter, and approximately 20.5 kilometres in length. The following existing reservoirs will be supplied along the route: Knelsby, Emoyeni, Emberton, Abelia Rd, Wyebank and Mount Moriah.

C. Kloof to M1B Reservoir

Section C of the pipeline will tee off from the Western Aqueduct in Kloof and follow a southerly direction within the Haygarth Road reserve to the Haygarth Road reservoir site. Thereafter Section C will proceed perpendicular to the contours down the slope through the Nkonka Trust Nature Reserve over natural grasslands. The pipe will then cross the Nambiet River and will proceed within the Stockville Road servitude up to the existing N3 underpass and on to the Mahogany Road intersection before crossing privately owned greenfield land towards the Umhlathuzana River. Once across the Umhlathuzana River the route will be located up the right bank, through an existing

Eskom servitude where it will intersect the Umhlatuzana Road reserve. The route will then follow the road reserve up to the M1B reservoir complex.

Section C will have a pipe of approximately 700mm in diameter and approximately 7.5 kilometres in length, and the Haygarth Road Reservoir will be supplied on route.

D. Wyebank to NR5 Reservoir

Section D will follow Wyebank Road from the Wyebank Reservoir before turning north along Hilltop Road. The pipe will then turn east and follow existing unsurfaced roads towards the trigonometric beacon at elevation 396 metres on the crest of the uMngeni escarpment. At this point the pipe will run down a ridge at a slope of approx 30% to the uMngeni River crossing. Once across the uMngeni River the pipe will be routed around the Inanda cemetery, generally along the eastern boundary, before heading in a northeasterly direction mainly following existing gravel roads and tracks across the Inanda Mission Reserve No 4579. The pipe will then be routed within the road reserve of provincial road 138 near the Emachobeni Crèche after which it will cross the Gobhogobho River and then head north easterly to the NR5 reservoir complex in Ntuzuma Section E.

Section D will have a pipe of approximately 800mm in diameter and approximately 10.2 kilometres in length, and no reservoirs will be supplied en route.

Methodology

eThembeni staff members inspected the area on 23 August 2006. Soil surface visibility was good and we completed a controlled-exclusive surface survey, where 'sufficient information exists on an area to make solid and defensible assumptions and judgements about where [heritage resource] sites may and may not be' and 'an inspection of the surface of the ground, wherever this surface is visible, is made, with no substantial attempt to clear brush, turf, deadfall, leaves or other material that may cover the surface and with no attempt to look beneath the surface beyond the inspection of rodent burrows, cut banks and other exposures that are observed by accident' (King 1978).

No excavations or sampling were undertaken, since a permit from Amafa aKwaZulu-Natali is required to disturb a heritage resource. We assessed the value and significance of heritage resources, as defined in the KwaZulu-Natal Heritage Act 1997 and the criteria contained in Appendix A. Culturally significant landscapes were assessed according to the criteria in Appendix B.

The client provided a map of the site, which we have submitted to Amafa separately. We consulted various provincial databases, including historical, archaeological and geological sources and undertook a limited literature review. Geographic coordinates were obtained with a handheld Garmin GPS72 global positioning unit. Photographs were taken with a Hulett Packard digital camera and submitted to Amafa on a compact disc.

Background and literature review

The general area is one of variable heritage resource significance and the following tables provide a brief summary of archaeological time periods:

E arly	1.5 million to 180 000 years ago	Only stone artefacts remain from
S tone		this time period, including large
A ge		choppers, cleavers and hand axes
M idle	180 000 to 35 000 years ago	Stone tools smaller than in ESA;
S tone		include blades and flakes; human
A ge		and animal remains also found
L ater	35 000 years ago to the time	Variety of artefacts made from
S tone	of European settlement	organic and inorganic materials;
A ge		human remains, shell middens etc

E arly	400 – 500 AD	Mzonjani phase
I ron	500 – 700 AD	Msuluzi phase
A ge	700 – 900 AD	Ndondondwane phase
	900 – 1200 AD	Ntshekane phase
L ate	1200 – 1500 AD	Settlement by Nguni speakers
I ron	1500 – 1700 AD	Introduction of maize
A ge	1700 – 1850 AD	Pre-European settlement
	1850 AD to present	Historical

Numerous Stone and Iron Age sites have been recorded in the general area (Maggs 1989, Mazel 1989).

Early Stone Age stone scatters occur in raised beach gravels, eroded areas and ancient coastal dunes. No information is available on the foods eaten by the Early Stone Age people in Natal, but it can be assumed on the basis of evidence on Early Stone Age people elsewhere that their diet consisted primarily of animals and plant foods. It was also during this period that people learnt to control fire' (Mazel 1989: 3-5).

'Clear technological differences separate the Middle Stone Age from the Early Stone Age. Whereas Early Stone Age tools were generally core tools [choppers, handaxes, cleavers], Middle Stone Age tools were made of flakes and blades detached from the core [trapezoids, segments, scrapers, points, flakes, blades]. Handaxes and cleavers were absent...

'Relatively little is known about the particular types of food that the Middle Stone Age hunter-gatherers ate. Border Cave [situated in the Lebombo Mountains on the border between South Africa and Swaziland] is the only site from which information is at present available... Small quantities of a wide variety of animals were found in the Border Cave excavations. These included honey badger, dassie, Burchell's zebra, bushpig, warthog, hippopotamus, steenbok, oribi, mountain reedbuck, waterbuck, roan / sable, impala, blesbok, hartebeest / tsessebe, blue wildebeest, springbok, greater kudu, nyala, bushbuck, eland, Cape buffalo and possibly an extinct giant Cape horse (*Equus capensis*).

'A handful of seeds was also found at Border Cave, while grindstones, which may have been used in the processing of plant foods, have been recovered from the Middle Stone Age layers at Umhlatuzana Shelter [located between Durban and Pietermaritzburg]...

'Evidence of the manufacture of cultural articles from materials other than stone first appears during the Middle Stone Age. So also does evidence concerning religious practices, the final Middle Stone Age stage at Border Cave producing the earliest known burial so far attributed to the Middle Stone Age' (Mazel 1989: 6-8).

Recent excavations at Sibhudu Shelter, a near-coastal site located between the uMvoti and uMngeni Rivers, promise to shed more light on the Middle Stone Age of KwaZulu-Natal.

Later Stone Age sites occur throughout the province, with high concentrations in places such as the uKhahlamba mountains where rock shelters suitable for occupation are plentiful.

'Stone artefacts are overwhelmingly the most common cultural item recovered from the excavations that have been carried out, followed by pottery (belonging to the last 2 000 years), ground, polished and shaved bone, beads and ostrich eggshell... [Stone] scrapers were probably used for removing the fat from animal skins before these were pegged out to dry. Adzes were probably used for shaving wood and, to a lesser extent, bone; while backed pieces, of which there are different types, were probably employed in hunting and cutting up carcasses.

'A great deal of information about the foods Later Stone Age hunter-gatherers ate has been obtained from animal, plant and marine and freshwater shell remains. In some cases, it has been possible to identify the remains of individual species. As small animals in particular are sensitive to environmental fluctuations, these remains can also tell us much about past environments. Botanical remains are also very useful, for seeds can indicate which fruits and berries Later Stone Age people ate. And, because fruits and berries are seasonal, they can also provide information about the months during the year when sites were occupied' (Mazel 1989: 11-12).

'One of the main themes of Later Stone Age research in South Africa, including Natal, has been that of seasonality. It has been hypothesized, on the basis of the analysis of the seasonal movements of large antelope, that the food resources of southern Natal would have been exploited on a seasonal basis by hunter-gatherers. According to this hypothesis, they would have occupied the Drakensberg in summer and the Thornveld and coastal areas during winter, traversing the Midlands along ridges rather than in the valleys.

'Recent field-work based on this hypothesis has suggested that in southern Natal during the last 3 500 years, hunter-gatherers would have occupied the Drakensberg in spring and summer (October to March), the coastal zone in winter (April / May to August), and the Midlands in autumn and late winter (March / April to September). This seasonal hypothesis... has given rise to the speculation that while they were in the Drakensberg, the hunter-gatherers would have lived in large groups and would have operated from large home-base sites.

'One of the results of the formation of these larger social units could have been an increase in ritual activity. Social organisation in the Midlands, however, would have been characterized by the small mobile groups that traversed the zone, while in the coastal zones larger groups, but not as large as those in the Drakensberg, would have been found' (Mazel 1989: 17).

'The advent of the Iron Age saw not only the introduction of metallurgy. Of even greater significance was the introduction of agriculture, necessitating a settled, village way of life instead of the nomadic patterns of the Stone Age. It also provided for an appreciable increase in population density, as well as a more complex life-style. Richly decorated pottery is a hallmark of these early settlements. Domestic animals including cattle, sheep, goats and dogs were also a feature of the Iron Age, although current

information indicates that they had already reached parts of South Africa, but apparently not Natal, during the Late Stone Age, through the agency of Khoisan herders...

'... the earliest Iron Age sites in South Africa, including Natal, relate to an eastern coastal and lowland cultural tradition with links as far north as the Kwale sites of eastern Kenya. This tradition has been named 'Matola', after a site in southern Mozambique, which provided close typological links between the Natal and eastern Transvaal sites'. [In KwaZulu-Natal] almost all of them are on the belt of ancient dunes, which would have been covered by coastal forest at the time' (Maggs 1989: 29-31).

'Most Early Iron Age sites in Natal are later than the [Mzonjani] period and are classified according to ceramic styles [refer to the table above]... By this time villages, often about eight hectares in size and probably containing a hundred or more people, had become common in the lower-lying and savannah areas, below an altitude of 1 000 metres. They were most common along the major rivers and in the coastal belt, where there was good, deep soil, sweet year-round grazing, and timber for building and fuel...

'Diet was based on agriculture and pastoralism, with a little supplementary hunting, fishing and gathering of wild plants and shellfish. Crops identified from seeds include several grains (bulrush millet, finger millet and probably sorghum), and probably the African melon... Most villages had one or more iron smelting areas and therefore produced their own requirements' (Maggs 1989: 31-32).

The beginning of the Late Iron Age marked a period of significant change in pottery styles, attributable to both socio-political and demographic factors (Maggs 1989). Settlements were no longer located in river valleys, but were built on higher ground where homesteads would benefit from cooling breezes and good views for strategic purposes.

Steep slopes, wetlands and marshy areas were used for grazing domestic animals and gathering wild food and medicinal plants. Settlements appear to have been much smaller, implying that 'society underwent a change away from the large Early Iron Age villages and towards the individual family homesteads of the historic Nguni-speaking peoples (Maggs 1989: 35).

Artefacts on Iron Age homestead sites include ceramic sherds, upper and lower grindstones and human and animal bones. Metalworking sites are often located in areas where iron ore is available and associated debris includes furnace remains, slag, bloom and ceramic sherds.

'The evidence or written sources [from shipwrecked Portuguese and other European mariners, who traversed lowland and coastal Natal on their way northwards to Mozambique] shows that, by the 1550s, while the coastal sourveld of Pondoland was thinly inhabited, coastal Natal from the Mtamvuna northwards was already well populated. A settlement of twenty hemispherical huts built of poles and thatch is described as being typical of the coast at that time. A later report confirms that such 'small villages' were the homes of kinship groups, each under the authority of a senior man. There can have been little difference between these homesteads and those of the nineteenth century in Natal and Zululand.

'The agro-pastoral economy of the Iron Age prevailed throughout the coastal regions, with cultivation typically a combination of grains, legumes and vegetables of the pumpkin-melon family. There were three types of grains, one being sorghum and another a smaller-seeded millet, specific identification being difficult to establish from the old Portuguese documents. Vegetables included beans, African groundnuts (both legumes), gourds, watermelons and pumpkins, while sorghum was cultivated for its sweet pith as well as for its seeds... There is evidence to show that tobacco was being cultivated and smoked by 1686. Cattle, sheep and goats were seen in quantities, as were chicken from southern Natal northwards' (Maggs 1989: 39).

¹ This tradition is now known as Mzonjani in KwaZulu-Natal.

Observations and recommendations

No construction activities associated with the proposed project had begun prior to our visit, in accordance with provincial heritage legislation.

⇒ [Places, buildings, structures and equipment](#)

None will be affected.

⇒ [Places to which oral traditions are attached or which are associated with living heritage](#)

None will be affected.

⇒ [Historical settlements and townscapes](#)

None will be affected.

⇒ [Landscapes and natural features](#)

The landscape is extremely variable and will not be affected negatively in the long term by this linear development.

⇒ [Geological sites of scientific or cultural importance](#)

None will be affected.

⇒ [Archaeological and palaeontological sites](#)

None will be affected.

⇒ [Graves and burial grounds](#)

None will be affected.

⇒ [Movable objects excluding any object made by a living person](#)

None will be affected.

⇒ [Battlefields](#)

None will be affected.

⇒ [Traditional building techniques](#)

None will be affected.

Summary of findings in terms of the KwaZulu-Natal Heritage Act 1997 Section 27(3)

(a) the identification and mapping of all heritage resources in the area affected

None.

(b) an assessment of the significance of such resources in terms of the heritage assessment criteria set out in regulations

Not applicable.

(c) an assessment of the impact of development on such heritage resources

Not applicable.

(d) an evaluation of the impact of the development on heritage resources relative to the sustainable social and economic benefits to be derived from the development

Not applicable.

(e) the results of consultation with communities affected by the proposed development and other interested parties regarding the impact of the development on heritage resources

The client has undertaken such consultation in terms of statutory requirements and retains the relevant documentation.

(f) if heritage resources will be adversely affected by the proposed development, the consideration of alternatives

Not applicable.

(g) plans for mitigation of any adverse effects during and after completion of the proposed development

If permission is granted for development to proceed, the client is reminded that the Act requires that a developer cease all work immediately and notify Amafa should any heritage resources, as defined in the Act, be discovered during the course of development activities.

Conclusion

We recommend that this project may proceed with no further heritage resource mitigation and have submitted this report to Amafa aKwaZulu-Natali in fulfilment of the requirements of the KwaZulu-Natal Heritage Act. According to Section 27(4) of the Act:

The report shall be considered timeously by the Council which shall, after consultation with the person proposing the development, decide -

- (a) whether or not the development may proceed;
- (b) any limitations or conditions are to be applied to the development;
- (c) what general protections in terms of this Act apply, and what formal protections may be applied to such heritage resources;
- (d) whether compensatory action shall be required in respect of any heritage resources damaged or destroyed as a result of the development; and
- (e) whether the appointment of specialists is required as a condition of approval of the proposal.

The client may contact Ms Elize Becker at Amafa's Pietermaritzburg office (telephone 033 3946 543) in due course to enquire about the Council's decision.

References

King, T. F. 1989. The archaeological survey: methods and uses. Quoted in Canter, L. W. 1996. Environmental impact assessment. Second Edition. New York: McGraw-Hill, Inc.

Maggs, T. 1989. The Iron Age farming communities. In Duminy, A. and Guest, B. (eds) Natal and Zululand from earliest times to 1910. A new history pp. 28-48. Pietermaritzburg: University of Natal Press.

Mazel, A. 1989. The Stone Age peoples of Natal. In Duminy, A. and Guest, B. (eds) Natal and Zululand from earliest times to 1910. A new history pp. 1-27. Pietermaritzburg: University of Natal Press.

APPENDIX A

SIGNIFICANCE AND VALUE OF HERITAGE RESOURCE SITES

The following guidelines for determining site significance were developed by the South African Heritage Resources Agency in 2003. We use them in conjunction with tables of our own formulation (see that for the Southern African Iron Age, below) when considering intrinsic site significance and significance relative to development activities, as well as when recommending mitigatory action.

Type of Resource

Place

Structure

Archaeological Site

Palaeontological Site

Geological Feature

Grave

Type of Significance

1. Historical Value

It is important in the community, or pattern of history

- Importance in the evolution of cultural landscapes and settlement patterns
- Importance in exhibiting density, richness or diversity of cultural features illustrating the human occupation and evolution of the nation, Province, region or locality.
- Importance for association with events, developments or cultural phases that have had a significant role in the human occupation and evolution of the nation, Province, region or community.
- Importance as an example for technical, creative, design or artistic excellence, innovation or achievement in a particular period

It has strong or special association with the life or work of a person, group or organisation of importance in history

- Importance for close associations with individuals, groups or organisations whose life, works or activities have been significant within the history of the nation, Province, region or community.

It has significance relating to the history of slavery

- Importance for a direct link to the history of slavery in South Africa.

2. Aesthetic Value

It is important in exhibiting particular aesthetic characteristics valued by a community or cultural group

- Importance to a community for aesthetic characteristics held in high esteem or otherwise valued by the community.
- Importance for its creative, design or artistic excellence, innovation or achievement.
- Importance for its contribution to the aesthetic values of the setting demonstrated by a landmark quality or having impact on important vistas or otherwise contributing to the identified aesthetic qualities of the cultural environs or the natural landscape within which it is located.
- In the case of an historic precinct, importance for the aesthetic character created by the individual components which collectively form a significant streetscape, townscape or cultural environment.

3. Scientific Value

It has potential to yield information that will contribute to an understanding of natural or cultural heritage

- Importance for information contributing to a wider understanding of natural or cultural history by virtue of its use as a research site, teaching site, type locality, reference or benchmark site.
- Importance for information contributing to a wider understanding of the origin of the universe or of the development of the earth.
- Importance for information contributing to a wider understanding of the origin of life; the development of plant or animal species, or the biological or cultural development of hominid or human species.
- Importance for its potential to yield information contributing to a wider understanding of the history of human occupation of the nation, Province, region or locality.

It is important in demonstrating a high degree of creative or technical achievement at a particular period

- Importance for its technical innovation or achievement.

4. Social Value

It has strong or special association with a particular community or cultural group for social, cultural or spiritual reasons

- Importance as a place highly valued by a community or cultural group for reasons of social, cultural, religious, spiritual, symbolic, aesthetic or educational associations.
- Importance in contributing to a community's sense of place.

Degrees of Significance

Rarity

It possesses uncommon, rare or endangered aspects of natural or cultural heritage

- Importance for rare, endangered or uncommon structures, landscapes or phenomena.

Representivity

It is important in demonstrating the principal characteristics of a particular class of natural or cultural places or objects

Importance in demonstrating the principal characteristics of a range of landscapes or environments, the attributes of which identify it as being characteristic of its class.

Importance in demonstrating the principal characteristics of human activities (including way of life, philosophy, custom, process, land-use, function, design or technique) in the environment of the nation, Province, region or locality.

Sphere of Significance

High

Medium

Low

International

☐
☐
☐

National

☐
☐
☐

Provincial

☐
☐
☐

Regional

☐
☐
☐

Local

☐
☐
☐

Specific Community

☐
☐
☐

What other similar sites may be compared to this site?

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Southern African Iron Age

	Significance		
	- low	- medium	- high
Unique or type site			Yes
Formal protection			Yes
Spatial patterning	?Yes	?Yes	?Yes
Degree of disturbance	75 – 100%	25 – 74%	0 – 24%
Organic remains (list types)	0 – 5 / m ²	6 – 10 / m ²	11 + / m ²
Inorganic remains (list types)	0 – 5 / m ²	6 – 10 / m ²	11 + / m ²
Ancestral graves			Present
Horizontal extent of site	< 100m ²	101 – 1000m ²	1000 + m ²
Depth of deposit	< 20cm	21 – 50cm	51 + cm
Spiritual association			Yes
Oral history association			Yes
➤ Research potential			High
➤ Educational potential			High

Please note that this table is a tool to be used by qualified cultural heritage managers who are also experienced site assessors.

APPENDIX B

The American National Parks Services sets out various criteria for the identification and management of cultural landscapes:

'Cultural landscapes are complex resources that range from large rural tracts covering several thousand acres to formal gardens of less than an acre. Natural features such as landforms, soils and vegetation are not only part of the cultural landscape, they provide the framework within which it evolves. In the broadest sense, a cultural landscape is a reflection of human adaptation and use of settlement, land use, systems of circulation and the natural resources and is often expressed in the way land is organised and divided, patterns of types of structures that are built. The character of a cultural landscape is defined both by physical materials, such as roads, buildings, walls and vegetation, and by use reflecting cultural values and traditions.

'Identifying the character-defining features in a landscape and understanding them in relation to each other and to significant historic events, trends and persons allows us to read the landscape as a cultural resource. In many cases, these features are dynamic and change over time. In many cases, too, historical significance may be ascribed to more than one period in a landscape's physical and cultural evolution.

'Cultural landscape management involves identifying the type and degree of change that can occur while maintaining the character-defining features. The identification and management of an appropriate level of change in a cultural landscape is closely related to its significance. In a landscape significant for its association with a specific style, individual, trend or event, change may diminish its integrity and needs to be carefully monitored and controlled. In a landscape significant for the pattern of use that has evolved, physical change may be essential to the continuation of the use. In the latter case, the focus should be on perpetuating the use while maintaining the general character and feeling of the historic period(s), rather than on preserving a specific appearance.

'A cultural landscape is a geographic area, including both natural and cultural resources, associated with a historic event, activity or person. The National Park Services recognises four cultural landscape categories: historic designed landscapes, historic vernacular landscapes, historic sites and ethnographic landscapes. These categories are helpful in distinguishing the values that make landscapes cultural resources and in determining how they should be treated, managed and interpreted...

'The four cultural landscape categories are not mutually exclusive. A landscape may be associated with a significant event, include designed or vernacular characteristics and be significant to a specific cultural group.'