

APPLICATION FORM NOTIFICATION OF INTENT TO DEVELOP SECTION 38 (1) AND SECTION 38 (8)

Heritage Western Cape Reference No:

*To be completed by
applicant*

20061004

Completion of this form is required by Heritage Western Cape for the initiation of all impact assessment processes under Section 38 (1) & (8) of the National Heritage Resources Act (NHRA).

Whilst it is not a requirement, it may expedite processes and in particular avoid calls for additional information if certain of the information required in this form is provided by a heritage specialist/s with the necessary qualifications, skills and experience.

A. APPLICABILITY OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT (NEMA)

DEADP/ DMR Reference Number:



This application is made in terms of Section 38(8) of the NHRA and an application under NEMA has been made to the following authority:



This development will not require a NEMA application.

NOTE:

Making an incorrect statement or providing incorrect information in this part of the form may result in all or part of the application having to be reconsidered by HWC in the future, or submission of a new application.

B. BASIC DETAILS

PROPERTY DETAILS:

Name of property: Tronox Namakwa Sands Mine

Street address or location (eg: off R44):

Erf or farm number/s: farms:
Rietfontein Extension, 151, Portion 1
Rietfontein Extension, 151, Remaining Extent
Houtkraal 143, Portion 5
Hartebeeste Kom 156, Portion 1
Hartebeeste Kom 156, Portion 2
Graauwduinen 152, Remainder of Portion 1

Coordinates:
S31.24873 E17.934288
(A logical centre point. Format based on WGS84.)

Town or District: Koekenaap, Vredendal

Municipality: Vredendal

Extent of property: Approx 3000 HA

Current use: Mining

Predominant land use/s of surrounding properties: Mining, agriculture.

REGISTERED OWNER OF PROPERTY:

Name and Surname: Tronox Mineral Sands (Pty) Ltd		
Address PO Box 223, Lutzville, 8165		
Telephone (027) 217 3042	Cell 083 709 6556	E-mail Marius.Vlok@tronox.com
APPLICANT/ AUTHORISED AGENT:		
Name and Surname: Marius Vlok		
Address: PO Box 223, Lutzville, 8165		
Telephone (027) 217 3042	Cell 083 709 6556	E-mail Marius.Vlok@tronox.com
<p>By the submission of this form and all material submitted in support of this notification (ie: 'the material'), all applicant parties acknowledge that they are aware that the material and/or parts thereof will be put to the following uses and consent to such use being made: filing as a public record; presentations to committees, etc; inclusion in databases; inclusion on and downloading from websites; distribution to committee members and other stakeholders and any other use required in terms of powers, functions, duties and responsibilities allocated to Heritage Western Cape under the terms of the National Heritage Resources Act. Should restrictions on such use apply or if it is not possible to copy or lift information from any part of the digital version of the material, the material will be returned unprocessed.</p>		
<p>I confirm that I enclose with this form two hardcopies of all material submitted together with a CD/ USB containing digital versions of all of the same.</p>		

Signature of Owner:  Date: 12/06/2020

Signature of Applicant/ Authorised Agent:  Date: 12/06/2020
(Applicants/ agents must attach copy of power of attorney to this form.)

C. DEVELOPMENT DETAILS:

Please indicate below which of the following Sections of the National Heritage Resources Act, or other legislation has triggered the need for notification of intent to develop.

<input checked="" type="checkbox"/> S38(1)(a) Construction of a road, wall, powerline , pipeline, canal or other similar form of linear development or barrier over 300m in length.	S38(1)(c) Any development or activity that will change the character of a site -
<input type="checkbox"/> S38(1)(b) Construction of a bridge or similar structure exceeding 50m in length.	<input checked="" type="checkbox"/> (i) exceeding 5 000m ² in extent;
<input type="checkbox"/> S38(1)(d) Rezoning of a site exceeding 10 000m ² in extent.	<input checked="" type="checkbox"/> (ii) involving three or more existing erven or subdivisions thereof;
<input type="checkbox"/> Other triggers, eg: in terms of other legislation, (ie: National Environment Management Act, etc.) Please set out details:	<input type="checkbox"/> (iii) involving three or more erven or divisions thereof which have been consolidated within the past five years.
	<p>If you have checked any of the three boxes above, describe how the proposed development will change the character of the site:</p> <p>As the site is approved for mining and the project is associated with the (already approved) remining of an existing mining area, the project will not significantly change the character of the site.</p>

If an impact assessment process has also been / will be initiated in terms of other legislation please provide the following information:

Authority / government department (ie: consenting authority) to which information has been /will be submitted for final decision: Department of Mineral Resources and Energy

Present phase at which the process with that authority stands: Pre-application

Provide a full description of the nature and extent of the proposed development or activity including its potential impacts:

The Namakwa Sands project was initiated with a prospecting phase in 1987 and has been in operation since approval of mining in the early 1990s. The various mining phases have been subject to numerous heritage and archaeological studies initially by ACO and by Jayson Orton of ASHA. The mining operation involves open mining of sand and subsurface deposits for the extraction of mineral rich sands. The heavy mineral sands are semi-processed on site and the concentrated ore is trucked to Saldanha Bay for smelting and export.

The Mine is split into a (currently shallow) East and (deeper) West Mine. Currently only the surface Red Aeolian Soil (RAS) is mined in the East Mine, using a conventional open pit panel mining method (excavation). In order to continue operations at the East Mine beyond 2024, Tronox **is authorised** to Mine the deeper Orange Feldspathic Sand (OFS) resource to a depth of ~35 m over approximately 23 year period (i.e. from 2021 to 2043) – the East OFS project.

Prior to mining, vegetation is cleared, and topsoil is harvested to a depth of 5 cm for use in concurrent rehabilitation. Following site preparation, front end loaders excavate the ore and it is transported to on-site processing.

Coarse sand tailings are returned to the pit for backfilling. Fine residue is pumped to Residue Storage Facilities (RSFs).

Once the pit of each mining block is backfilled it is profiled / shaped, and windbreaks are installed. Harvested topsoil is then spread in rehabilitated areas during growing seasons to enhance rehabilitation success. Rehabilitated areas are monitored to determine rehabilitation success. The East Mine RAS Life of Mine extends until 2024.

The following changes to the authorised East OFS project, and additional infrastructure are proposed, and require authorisation through this process:

- Single stacking sand tailings in the approved East OFS pit by haul truck by:
 - Tipping (single stacking – see Box 1) sand tailings by haul trucks to a minimum depth of 1m in the mining pit (see Section **Error! Reference source not found.**); and
 - Returning RAS tailings overburden to the pit by haul truck to the mining pit where sand tailings has not been placed, to a minimum depth of 1m.
- Establishing two new Sand Tailings Facilities (STFs - sand tailings stockpiles) in the East Mine pit to accommodate the surplus sand tailings from, but not all backfilled to, the void in the pit).
- Establishing a ~400 ha, 47.6 million m³ (volumetric capacity) RSF (RSF 6) for the controlled disposal of fine residue generated by the East OFS project (as opposed to three separate, smaller fine residue facilities which were approved in the original application) and associated residue and return water pipelines and pumps.

- Establishing a 50 ha Interim RAS tailings overburden stockpile with a capacity of 3.15 Mm³ in an area approved for mining east of the proposed RSF).
- Upgrading the seawater intake.
- Installing a 22 kV overhead powerline).
- Demolishing two farmhouses within the East OFS pit, each more than 60 years old.

The project area in question was subject to an HIA process that was undertaken as part of an EMPr Amendment process by Golder International in 2011 (Golder Associates, 2011). Additional areas in the east mine were surveyed by ACO and 3 farm buildings in very poor condition were identified (HK 12, 13 and 14). At the time these were graded 3c and the recommendation was made that these could be demolished if the need arose¹. "East Mine House" was not assessed during this study.

The current project is a new EIA process for modifications to the project description. This will involve the demolition of the structures identified and graded in 2006 and the "East Mine House", as well as the construction of a 22 KV power line which lies entirely within the mining area (previously assessed and approved for mining). Aside from the structures all the surrounding areas have now been mined.

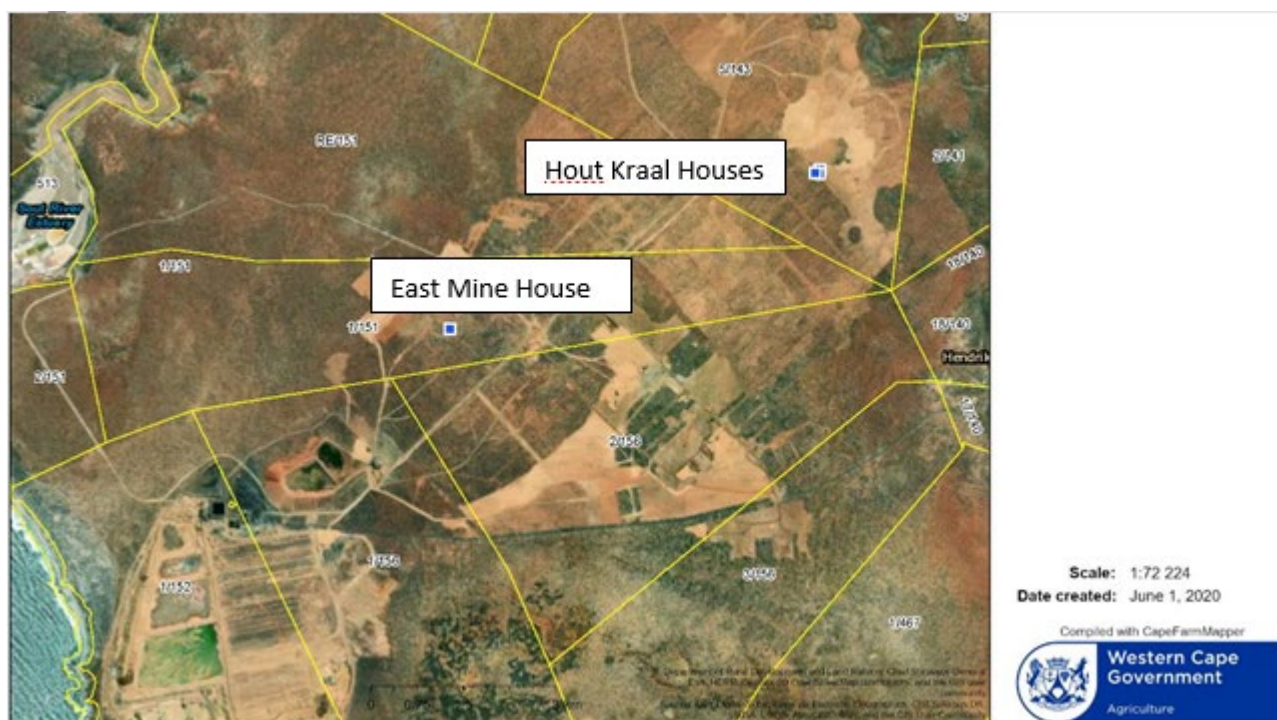


Figure 1 Location of structures to be demolished.

¹ The foundations of the severely eroded remains of the HK14 structure were destroyed by nearby mining.

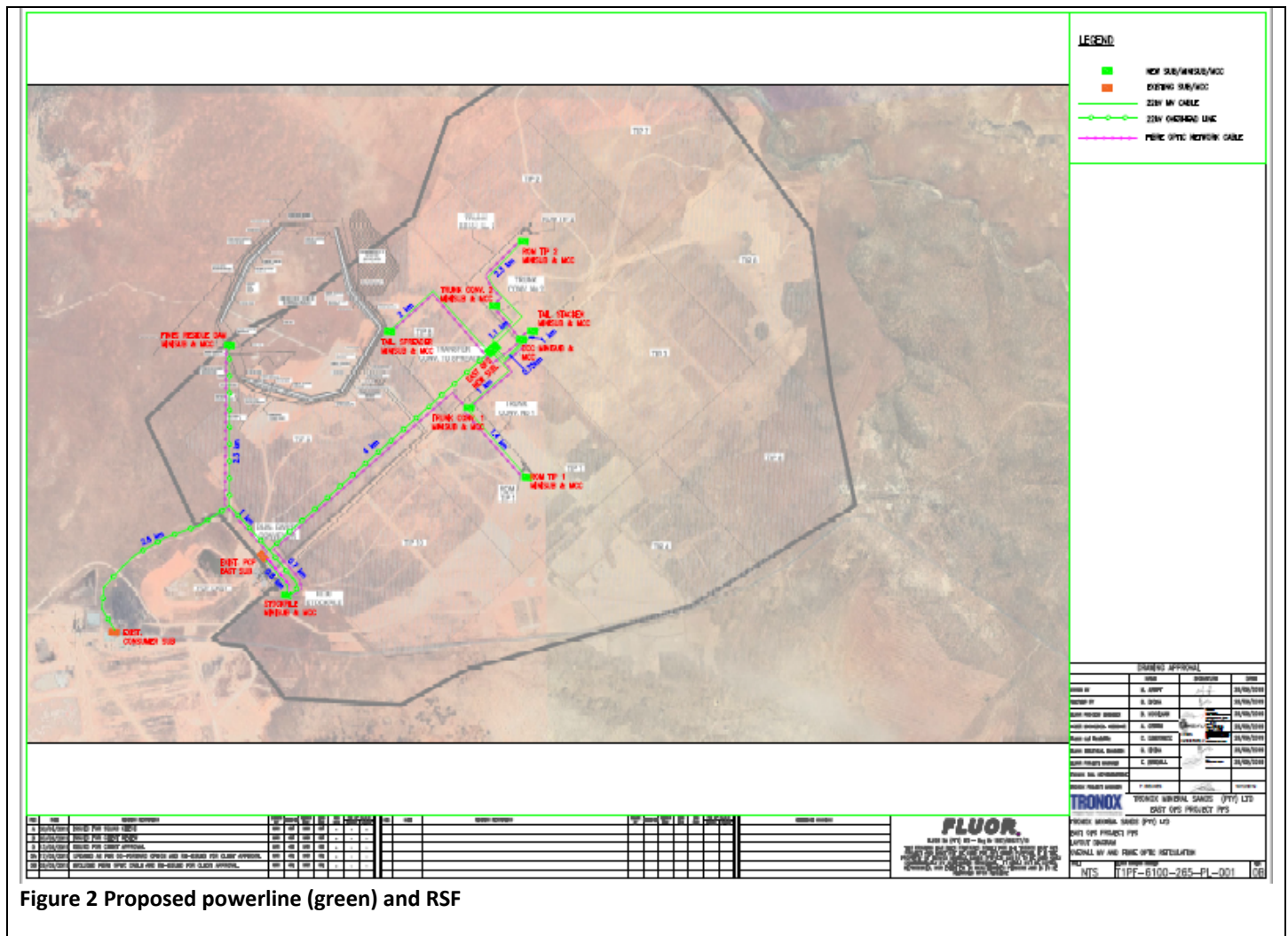


Figure 2 Proposed powerline (green) and RSF

D. ANTICIPATED IMPACTS ON HERITAGE RESOURCES

Section 3 of the National Heritage Resources Act sets out the following categories of heritage resource as forming part of the national estate. Please indicate the known presence of any of these by checking the box alongside and then providing a description of each occurrence, including nature, location, size, type.

Failure to provide sufficient detail or to anticipate the likely presence of heritage resources on the site may lead to a request for more detailed specialist information.

(The assistance of relevant heritage professionals is particularly relevant in completing this section.)

Provide a short history of the site and its environs (Include sources where available):

The general area has numerous archaeological sites dating from the Pleistocene to the proto-historic period. A number of these have been excavated and described. European settlement of this area is recent commencing in the late 19th century with many of the farm structures being built in the early 20th century.

In general terms the most significant heritage sites found in the study area are those containing pre-colonial archaeological material. Colonial settlement of this remote area is sparse, and by

comparison, insignificant.

The pre-colonial material consists of Late Stone Age (LSA) shell midden sites (mostly less than 5000 years old) concentrated in the dunes close to the coast and close to natural pans, water bodies and dune deflations/blowouts away from the coast. Many of these sites lie on the surface of the landscape and are often visible. Middle Stone Age (MSA) sites (more than 40 000 years old) have been identified buried in the red aeolian sands close to the coast and are ubiquitously visible in any areas where underlying hardpan (Dorbank) is exposed. Early Stone Age (ESA) material (greater than 200 000 years old) in the form of several spectacular silcrete quarries have been found in and close to the western ore body on the farm Rietfontein Extension. One of these sites has been conserved. ESA artefacts have been found virtually throughout the study area buried under the sand bodies but lying on the sub-surface hardpan (i.e. in the mined out East Mine RAS / shallow ore body). Due to their buried state, impacts to this kind of archaeological material are extremely difficult to identify and mitigate.

Late Stone Age archaeological sites, which tend to be the most sensitive form of heritage site found in the study area, are concentrated within what would have been easy reach of food and water sources. In this case the most significant area is the coastline, especially rocky shorelines where shellfish and lobsters could be collected. As a result, archaeological sites are concentrated within 400 m of the coast and are rather more dispersed inland. Inland they tend to be found close to both permanent and non-permanent water sources as well as foci on the landscape (rock outcrops, dune deflations) that could have provided shelter from the prevailing winds.

Reference:

ACO 2006. Namakwa Sands EMPR Amendment Heritage Study. Prepared for Namakwa Sands.

Please indicate which heritage resources exist on the site and in its environs, describe them and indicate the nature of any impact upon them:

<input checked="" type="checkbox"/>	Places, buildings, structures and equipment of cultural significance
	<p>Description of resource: The following three sites are all historical sites related to one another and are located east of HK11 (a Late Stone Age boulder shelter with archaeological deposit). The buildings are marked "Sandkop" on the 1:50 000 topographical map of the area but today the area is known as Houtkraal 143. The farm itself appears to have been formalised in 1943 however the houses on it as indicated below appear to be older.</p> <p>Site Number: HK12</p> <p>Site type: Historical structure</p> <p>Impact of mining: Destruction</p> <p>Provisional grading: Grade 3c</p> <p>Significance: Low</p> <p>GPS co-ordinates: S 31° 13' 47.2" E 17° 59' 14.8"</p> <p>Description: This structure is a cottage most likely dating to the 1930's. It is in relatively poor condition due to a lack of maintenance. The house was built in two stages with the rear rooms and stoep having been added to the front, pitched roof section. The overall plan is roughly square with seven rooms, two stoeps and an external hearth. A tiny store room has been added to the left-hand side and a separate water tank is also located on the left side. The presence of older, non-residential structures nearby</p>

suggests that an older house ruin may be present in the area.

Just in front of the house is a separate small ruin. All that remains of this is the stone foundation and cement floor at ground level.

Comments: The ruins of two other structures (HK13 & HK14) are located very nearby. Due to the poor condition of all structures the complex is not conservation worthy.



Figure 3 Two views of structure HK 12.

Site Number: HK13

Site type: Historical structure
Impact of mining: Destruction
Provisional grading: Grade 3c
Significance: Low
GPS co-ordinates: S 31° 13' 47.5" E 17° 59' 17.1"
Description: This structure is older than the cottage, probably dating from the 19th century. It is a one-roomed structure made from mud bricks. The roof is missing and the bricks are eroding rapidly. Plaster still clings to some of the outer wall surfaces. The structure is assumed to have been an outbuilding of the farm.
Comments: See HK12 above.



Figure 4 Standing walling of single room building at HK 13

Site Number: East Mine house
Site type: Historical structure
Impact of mining: Destruction
Provisional grading: No grade
Significance: Low
GPS co-ordinates: S 31.24873 E17.934288
Description: This single-story bungalow situated on Farm Rietfontein extension 151 is built from 20th century material. The farm itself was first granted in 1880 and finally approved in 1926. The use of concrete and standard brick and cement throughout the house, the fibre-board ceilings and steel framed windows, a mid-20th century date of construction is suggested. The building, although at one time used as a temporary mine facility has been abandoned for many years.

The structure is not considered conservation-worthy.



Figure 5 East mine House - mid 20th century

<input type="checkbox"/>	<p>Places to which oral traditions are attached or which are associated with living heritage</p> <p>Description of resource:</p> <p>Description of impact on heritage resource:</p>
<input type="checkbox"/>	<p>Historical settlements and townscapes</p> <p>Description of resource:</p> <p>Description of impact on heritage resource:</p>
<input type="checkbox"/>	<p>Landscapes and natural features of cultural significance</p> <p>Description of resource:</p> <p>Description of impact on heritage resource:</p>
<input type="checkbox"/>	<p>Geological resources of scientific or cultural importance</p> <p>Description of resource:</p> <p>Description of impact on heritage resource:</p>
<input checked="" type="checkbox"/>	<p>Archaeological resources (Including archaeological sites and material, rock art, battlefields & wrecks):</p> <p>Description of resource: Project area surrounds has been mined and Tronox are authorised to mine the deeper OFS resource in the East Mine.</p> <p>Description of impact on heritage resource: No impacts.</p>
<input checked="" type="checkbox"/>	<p>Palaeontological resources (ie: fossils):</p> <p>Description of resource: Project area surrounds has been mined and Tronox are authorised to mine the deeper OFS resource in the East Mine.</p> <p>Description of impact on heritage resource: No impacts.</p>

<input type="checkbox"/>	Graves and burial grounds (eg: ancestral graves, graves of victims of conflict, historical graves & cemeteries): Description of Resource: Description of Impact on Heritage Resource:
<input type="checkbox"/>	Other human remains: Description of resource: Description of impact on heritage resource:
<input type="checkbox"/>	Sites of significance relating to the history of slavery in South Africa: Description of resource: Description of impact on heritage resource:
<input type="checkbox"/>	Other heritage resources: Description of resource: Description of impact on heritage resource:

Describe elements in the environs of the site that could be deemed to be heritage resources:

Structures graded and described above.

Description of impacts on heritage resources in the environs of the site: The structures will be fully demolished.

Summary of anticipated impacts on heritage resources:

- The proposed 22 KV power line is fully within previously assessed and largely mined areas. There will be no heritage impacts.
- The structures at Hout Kraal and Rietfontein extension exist as islands within a mined landscape and have lost all farming context. Such structures as well represented in RSA and contain no unique heritage attributes. They will need to be demolished; however, this will not be a significant loss.

E. ILLUSTRATIVE MATERIAL (This form will not be processed unless the following are included):

Attach to this form a minimum A4 sized locality plan showing the boundaries of the area affected by the proposed development, its environs, property boundaries and a scale. The plan must be of a scale and size that is appropriate to creating a clear understanding of the development.

Attach also other relevant graphic material such as maps, site plans, satellite photographs and photographs of the site and the heritage resources on it and in its environs. These are essential to the processing of this notification.

Please provide all graphic material on paper of appropriate size and on CD/ USB in JPEG format. It is essential that graphic material be annotated via titles on the photographs, map names and numbers, names of files and/or provision of a numbered list describing what is visible in each image.

F. RECOMMENDATION

In your opinion do you believe that a heritage impact assessment is required? ☐ Yes ☒ No

Recommendation made by:

Name Tim Hart

Capacity Heritage consultant and archaeologist.

PLEASE NOTE: No Heritage Impact Assessment should be submitted with this form or conducted until Heritage Western Cape has expressed its opinion on the need for such and the nature thereof.

G. INFORMATION TO BE PROVIDED AND STUDIES TO BE CONDUCTED AS PART OF THE HERITAGE IMPACT ASSESSMENT (HIA)

If it is recommended that an HIA is required, please complete this section of the form.

DETAILS OF STUDIES TO BE CONDUCTED IN THE INTENDED HIA

In addition to the requirements set out in Section 38(3) of the NHRA, indicate envisaged studies:

<input type="checkbox"/>	Heritage resource-related guidelines and policies.
<input type="checkbox"/>	Local authority planning and other laws and policies.
<input type="checkbox"/>	Details of parties, communities, etc. to be consulted.
<input type="checkbox"/>	Specialist studies, eg: archaeology, palaeontology, architecture, townscape, visual impact, etc. Provide details:
<input type="checkbox"/>	Other. Provide details:

PLEASE NOTE: Any further studies which Heritage Western Cape requires should be submitted must be in the form of a single, consolidated report with a single set of recommendations. Specialist studies must be incorporated in full, either as chapters of the report, or as annexures thereto.