

# HERITAGE IMPACT ASSESSMENT OF PORTION 15 OF PAAPKUIL FONTEIN 28, CAPE AGULHAS, SOUTH AFRICA

Prepared for

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## **Executive summary**

The ACO of the University of Cape Town has carried out a Heritage Impact Assessment of Portion 15 of the farm Paapkuil Fontein 28, Cape Agulhas (as part of a broader Environmental Impact Assessment). The proposed development is for subdivision of land to create 27 small residential erven while the bulk of the 54 hectare development site is to be rezoned as private nature reserve. The proponent wishes to create a low impact conservation friendly development reminiscent of the settlement of Hotagterklip near Struisbaai. An Eco Center depicting the aspects of the environment and local heritage is planned. The development will result in the addition of some 27 dwellings to the small settlement of Suiderstrand.

The study revealed that the proposed development has been sensitively positioned relative to line of sight corridors from the southern most point of Africa.

The proposed architectural guidelines (as long as they are not deviated from) are suitable in terms of retaining the quality of the environment.

There are 11 shell middens on the property, several of which will potentially be negatively impacted in terms of the current site plan. Options are to adjust the position of the affected erven or mitigate destruction of archaeological material by sampling the sites.

Successful conservation of local heritage will depend on implementation of guideline/principles by a future resident's association or body corporate.

The property is considered to have special heritage qualities on account of the very well preserved set of stone walled fish traps (visvuywers) that exist in the intertidal zone. The research potential of the area is very high and the proponents desire to have the features proclaimed National Heritage Sites is supported.

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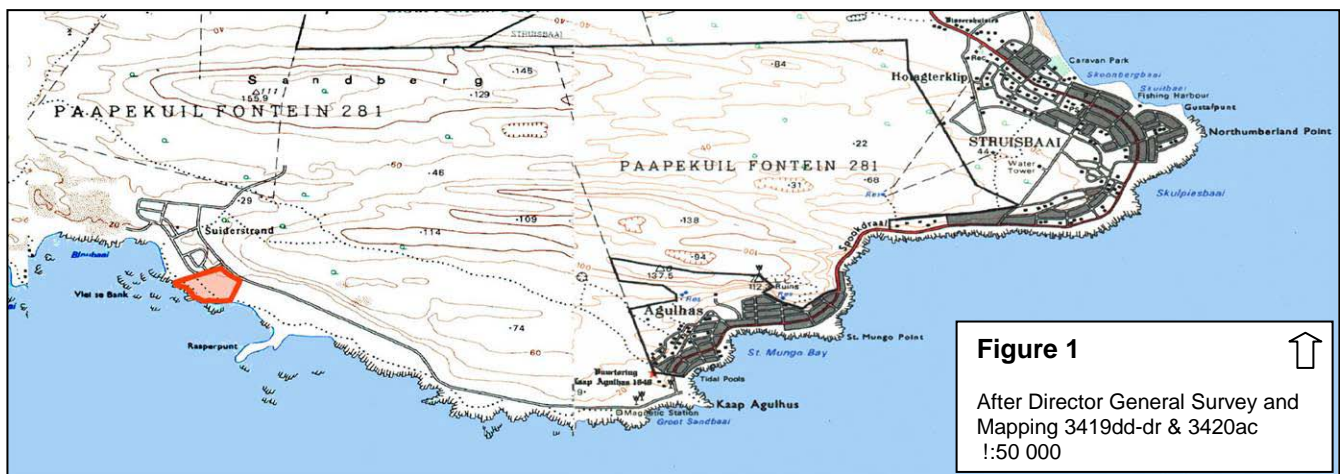
# 1. Introduction

The Archaeology Contracts Office of the University of Cape Town was appointed by Mr Christiaan Mostert to conduct a Heritage Impact Assessment for Portion 15 of the farm Paapkuil Fontein 281 situated close to Cape Agulhas, Southern Cape Coast. The proponent is planning limited development on the 53 hectares of coastal land. A component of the Heritage Impact Assessment is to develop conservation guidelines for a complex of tidal fish traps (*visvywers*) that lie in the intertidal zone adjacent to the property. The location of the development site is indicated on Figure 1.

## 1.2 Terms of reference

ACO, together with the proponent developed the terms of reference for the study which is as follows:

- A pre-development heritage impact assessment of the property (as required by section 38 of the NHRA)
- Locate and map heritage sites on the property
- Assess any such sites in terms of their significance (research potential, tourism potential, educational value)
- Assess how any such sites are vulnerable; what measures are required to conserve them if they are in a development area.
- An impact assessment report, part of which will be a conservation guideline document to provide a policy for the conservation of archaeological sites on the property.



## 1.3 Description of the affected environment

The land in question consists of 53 hectares of coastal *strandveld* (Plate 1) including low coastal dunes, as well as a secondary dunes which virtually run the breadth of the site. The shoreline is characterized by sheltered rocky bays and gulleys in which are situated a number of very well preserved prehistoric fish traps (*visvywers*). The land is currently undeveloped apart from a number of tracks illegally constructed by a previous owner in an aborted attempt to develop the site.

Situated at the small the small settlement of *Suiderstrand* just 2km west of the southernmost point of the continent on the edge of the Agulhas National Park, the site enjoys not only

outstanding scenic and natural qualities of its own, but lies within a significant landscape in terms of the wilderness qualities of the Southern Point.

In terms of the material heritage of the site, a number of prehistoric middens (Late Stone



Age) lie on the property mainly concentrated on the dune ridge tops but are also present close to the coast. The shoreline consists of shallow bays and gently sloping boulder beaches which formed an ideal area for the construction of prehistoric fish traps (*visvywers*) which are numerous in the area. While the intertidal zone does not form part of the development, the property owner has a personal interest in the *visvywers* and is anxious that measures are taken by the national and regional heritage authorities to ensure their conservation.

#### **1.4 The proposed development**

The proponent has recognized the sensitive qualities of the site, not only in terms of its context but also its heritage and biodiversity. The envisaged development is limited in its extent comprising of 27 subdivisions of 400m<sup>2</sup> each with the remainder of the property to be zoned as permanent private nature reserve. Each of the erven is situated on the south side of the main secondary dune so as to be invisible from the public road which runs across the northern border of the site. The proposed cottages are being designed along the lines of the traditional vernacular dwellings that exist at *Hotagterklip* in the nearby town of Struisbaai. Other structures planned for the site are an Eco Center showcasing the biodiversity of the

area as well as a section on local prehistoric heritage focusing in particular on the use of the nearby *visvywers*. Fresh water is to be provided by a small desalination plant, solid waste is to be held in septic tanks while grey water disposal is to be achieved through augmentation of natural wetlands in the lower portions of the site. The proponent intends to close and rehabilitate several informal tracks on the property. Access to various parts of the site will be via a system of walkways over sensitive dunes, vegetation and areas of archaeological significance.

Overall management of the development will be vested in a body-corporate sensitized in terms of environmental and heritage conservation.

## **1. Historical Background**

### **2.1 Regional archaeology**

The first formal research into the prehistory of the southern Cape was that published by Professor John Goodwin in 1946. This research did not involve any excavations of archaeological sites on the southern coast but was based upon a series of observations of *viswywers* (tidal fish traps) that had been built by prehistoric people - possibly the same people responsible for the accumulation of shell middens that contained numerous fish bones and fragments of pottery. Goodwin stressed the need for the archaeological investigation of sites that could provide evidence linking the contents of shell middens and the *visvywers*.

It was not until the 1970's that research by archaeologists of the South African Museum provided further insight into the prehistory of the southern Cape to the west of Cape Agulhas. Excavations by F.R. Schweitzer (1979) at Die Kelders cave near Gansbaai produced early evidence (1600 years ago) for the introduction of pottery technology and domestic stock into the Cape as well as a MSA (Middle Stone Age) occupation over 40 000 years old. More recently accelerator radio carbon dates have indicated that the Die Kelders material is nearly 2000 years old. Other excavations were carried out by the South African Museum at Byneskranskop 1 (Schweitzer and Wilson 1982) and again revealed a sequence of occupation extending back several thousand years. Excavations of shell middens in the Pearly Beach area by Graham Avery (1974,1976) showed that the remains of early domestic sheep were to be found in some of the coastal middens as well. He suggested that the *visvywers* of this area were probably built by the same people (Khoekhoen herders) who were responsible for accumulating the shell middens.

It is now broadly accepted by archaeologists that shortly after 2000 years ago, a new economic system was introduced to Southern Africa - namely certain groups of people adopted transhumant pastoralism (in this case with herds of fat-tailed sheep and later cattle) instead of hunting and gathering which was universally practiced in South Africa before this time. The origin of early stock keeping in Africa is still unknown.

In 1984 an area just to the west of Struisbaai was the focus of a study by archaeologists from the South African Museum and the University of Cape Town (Hall 1984). They were interested in the way in which prehistoric people were using the different kinds of environments represented in this area. The focus of this research was an area very similar in morphology to the site currently under investigation in this report in that it involved a shoreline, coastal dunes and flat coastal plains. An exhaustive survey of this area showed that the majority of archaeological sites were located directly on the shoreline, or on the edge of the inland dune field where large dunes overlook the coastal plain. The coastal plain itself

was relatively devoid of archaeological material and was clearly not a popular area for stone age communities. The study showed that the dunefield had been favoured for occupation over the last 4000-6000`years by both earlier hunting and gathering people and possibly pastoralists later on. Further research undertaken this year has confirmed that prominent coastal dune systems were important settlement areas during the late Holocene (up to 5000 years ago). Prehistoric people were selecting deflation bays and inland edges of the dunefields for encampments as this provided a good location from which to exploit the seasonal water and good grazing found on the coastal plain, or the marine resources of the nearby shore. Recent work by various consulting archaeologists (ACO and ACRM) resulted in more sites being recorded, however the basic settlement pattern appears to be consistent.

## **2.2 Tidal fish traps**

Fishing by means of the construction of tidal “dams” is used throughout the world – the materials from which the traps are built varies from place to place, however the basic principle is the same, namely the creation of tidal dams that result in the confinement of fish to an area where they can be easily collected or speared. The method is still used in Northern Natal (reed weirs and dams), similar traps were even used in the great intertidal zones of European rivers in the first millennium AD (L. Schietecatte pers comm). Stone tidal fish traps have been recorded along the southern Cape Coast, Cape Peninsula and recently at the mouth of the Berg River on the West Coast. No traps have been located along the north west coast. Avery (1974) has observed that tidal fish traps in the southern Cape were used in areas with specific characteristics: ie places where the gradient gave rise large intertidal zones where there were ample moveable boulders and rocks, shallow sheltered conditions allowed people to create gullies and dams. Avery’s research provided solid evidence that the traps were successfully used and maintained by communities at Elim into the 20<sup>th</sup> century. Although Avery’s work is well researched and detailed, he was never able to answer the question of how long were fish traps is use in the Southern Cape. He hypothesized that the traps had their origin in pre-colonial times being used by Khoehoen herding communities who harvested the traps at favourable times of the year on their seasonal herding cycles. While this is a plausible hypothesis, in reality the age of use of fish traps and their association with pre-colonial herding peoples has never been rigorously scientifically tested.

## **2. Method**

The development site was assessed by David Halkett (MA archaeology) and Tim Hart (MA archaeology). The team met the proponent, Mr Chris Mostert (who is also the property owner) on site and spent a day and a half completing the field assessment. Mr Mostert accompanied us for much of that time pointing out several middens he had correctly identified as well as the location of the fish traps. He also guided us through the erven for which a rezoning application is to be applied for, and discussed with us the possible visual, heritage and environmental impacts that the development could pose. At the time of inspection no infrastructure had been built on site apart from the fact that the proposed erven had been preliminarily marked out.

Standard methods were applied when doing the archaeological survey. Site location were marked using a hand held Garmin GPS 3 Plus (map datum WGS 84). Contents of the various archaeological sites were examined. Photographs were taken of not only archaeological material but also throughout the general development area. No trial

excavations were undertaken. Although only a relatively small portion of the property is to be rezoned for development, the entire area was surveyed to meet the requirements of section 38 of the National Heritage Resources Act.

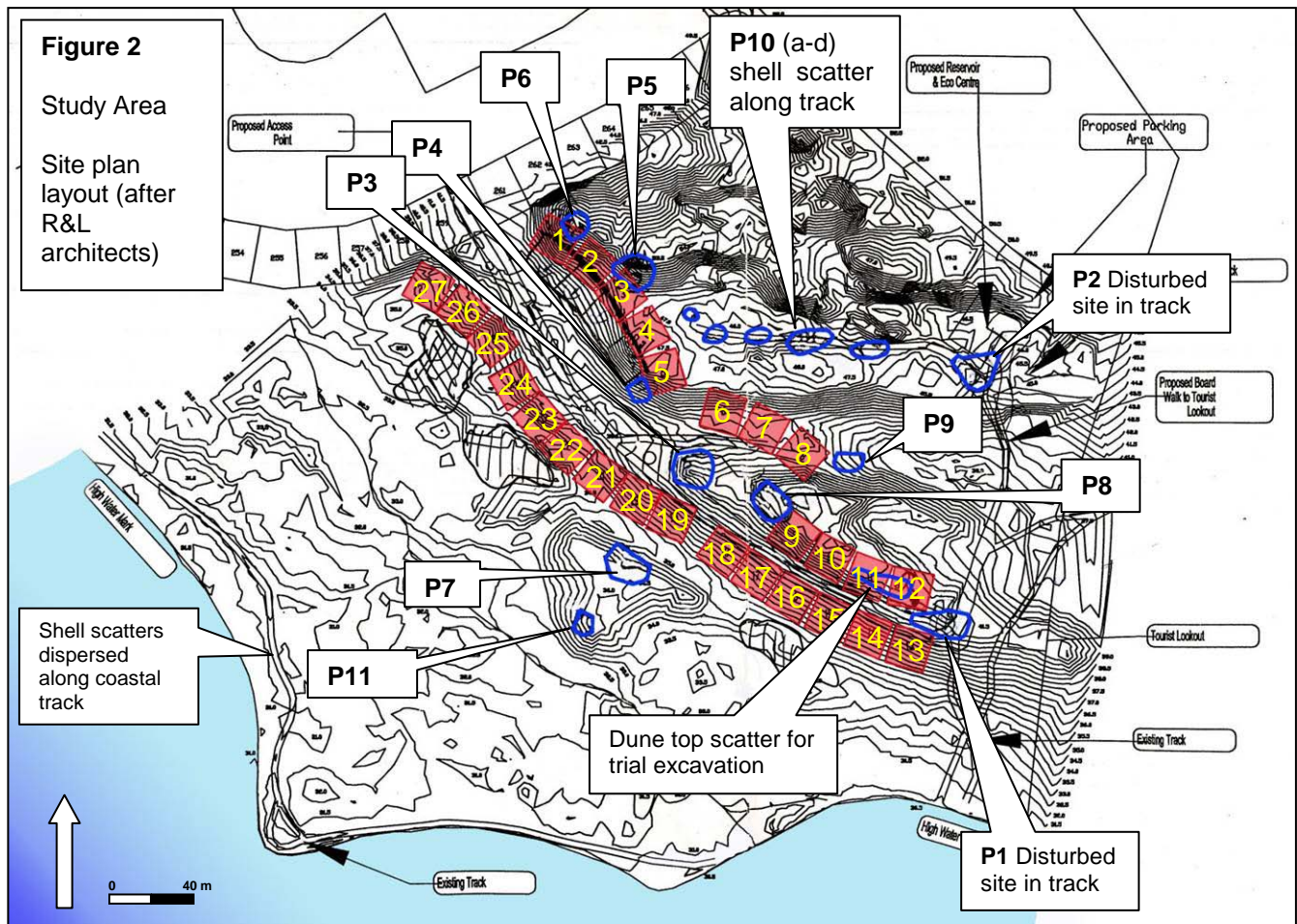
### 3.1 Restrictions to the study

The lower parts of the coastal plain were fairly densely vegetated in places making ground surface visibility poor. Fortunately these areas will not be developed but will form part of the conservancy. Archaeological material was easily visible in the dune areas and within the intertidal zone. The proponent allowed us unrestricted access to all of the property.

## 3. Findings (Development area)

Since there are no structures on the property protected by the NHRA, the main heritage elements relate to:

- The impacts of the proposed development activity on pre-colonial archaeological material.
- The impact of the development of the cultural landscape in relation to the geographical significance of the southernmost point.





## 4.1 Archaeological material

The study revealed the presence of 12 late Holocene shell middens. The locations of these are plotted on Figure 2 while the attributes and co-ordinates of individual sites are presented in Table 1.

### 4.1.1 Spatial patterning

In general, the spatial distribution of archaeological material follows a very distinct pattern. There is dispersed midden material visible along the fisherman's track that follows runs along the immediate shoreline (not to be developed) while more inland shell middens are associated with dune crests, occasionally capping the dune or eroding down slope in a dispersed scatter. Midden material is clearly visible in the first 15cm of topsoil in the illegal track (Plate 2) that runs along the base of the secondary dunes. This we suspect has eroded down from the dune crests. Dune top midden P5 (Plate 3) shows *in situ* stratigraphy. There is no immediate evidence of any meaningful infra-spatial patterning on any of the sites.



### 4.1.2 Cultural affiliations

The contents of the sites are fairly homogenous. The dominant shell species noted are *Turbo sarmaticus* (Alikreukel), *Haliotis midae* (Perlemoen), *Patella* (*Scutellastra*) *longicosta*, *Patella* (*Scutellastra*) *tabularis* and occasional *P. Granatina*, *P. Granularis*, *Burnupena* sp (Welks) and *Oxystele* sp (Periwinkels).



The dominant species, Alikreukel, Perlemoen and Limpets (*P. Longicosta*) are manifested in varying proportions from site to site. This pattern generally reflects the expected patterns of shellfish exploitation on the South Coast during the late Holocene.

Formal artefacts made from siliceous stones were relatively rare on all sites being confined to silcrete flakes and chips. A single thumbnail scraper was identified on site P1. The most common formal artefacts seen were upper and lower grindstones, hammer stones. In general the stone artifact assemblages were consistently informal being dominated by broken and flaked quartzite cobbles and manuports (elongated pebbles). Pottery of the Cape Coastal type was only found on one site (P1), however we cannot rule out the possibility that Jalmar Rudner of National Monuments Council collected pottery in the 1960's. Bone was scarce and fragmented on most sites; fragments of ostrich eggshell were present. In general the kinds of artifacts present are typical of what would be expected after the advent of pastoralism 2000 years ago.

### 4.1.3 The impact of development

The primary concern is the degree to which foundations of structures and layout of the erven will directly impact archaeological material. The erven to be developed are situated on the southern side of the dune ridge so as to benefit from the view to be had from this vantage point.

Seven of the 20 erven are situated close to archaeological material on the main dune ridge.

- **Erven 9-12** lie close to a dune ridge where site P1 is situated. There is a possibility that *in situ* material exists below the surface of the dune ridge as is indicated by the scatter shell present between P1 and P8. This may be impacted by foundations and landscaping if erven 1-4 are maintained in their current positions. Trial excavations (auger or shovels tests) will help establish the importance of this material and establish the necessity of mitigation – either by making minor adjustments to the positions of the 4 erven or by mitigation through formal archaeological sampling.
- **Erven 1-5** are indicated on Figure 2 as being on top of a dune ridge capped by sites P5 and P6. The proponent has assured us that these erven were incorrectly plotted and will be shifted southwards down slope. If moved, the erven will not result in any direct impacts to the material, however there is a concern that cutting back into the dune slope could result in collapse or erosion, which could affect material – especially stratified site P5. Similarly the presence of dwellings so close to the sites may result in secondary impacts caused by people wandering up slope beyond the boundaries of their properties into the conservancy land eroding the sensitive dune slopes and stratified material. Site P4 is vulnerable in terms of the road access to erf 5. Mitigation would have to involve very strict measures to ensure stability of the slope during the construction period, and thereafter the instillation of a very strict conservation ethic among the residents. If this cannot be achieved, archaeological sampling through formal excavation will be needed.
- **Desalination plant infrastructure.** There are no firm location set for the desalination plant and pipelines. Although the inlet and outlet pipelines will be fairly small, they will need to be led across the landscape to a suitable location on the shoreline where there is a continuous supply of seawater. The route must acknowledge the location of shell middens as well the presence of fish traps close to the shoreline. Physical impacts to either middens or fish traps must be avoided. Similarly, the pipeline route through the intertidal zone must avoid gulleys with fish traps to minimize visual impacts.

## 4.2 Cultural Landscape

The proposed development site, situated between the Southern most of Africa and the Agulhas National Park occupies a place of significance within a region that is attempting to boost its tourism potential by promoting the concept of the “Southernmost point of Africa” and “the place where the oceans meet”. To this end SanParks have exercised a visual servitude that tries to promote a sense of wilderness and remoteness by ensuring that no development is directly visible from the southernmost point. Although the escarpment and various dune ridges obscure sight of the development site from the point, the physical beauty of the area, - the shallow bays and coastal *fynbos* make an important contribution to the qualities of the region. The proponent is acutely aware of the sensitivity of the site and has taken measures to plan a conservative, low impact development that tries to guarantee the qualities of the

place and result in the rehabilitation of illegal roads and improvement of the natural environment.

#### 4.2.1 Impact of development

Development will contribute some 27 more dwellings to the village of Suiderstrand, which presently consists of a collection of some 70 houses of varied design. These range in size from those that quite small and visually sensitive, to several very large structures that have a very high impact on the landscape qualities of the area. The adoption of vernacular architecture styles by developers on the south coast is very uncommon despite the fact that the cottages at *Hotagterklip* and *Arniston* have the appearance of being much kinder to the visual qualities of the environment and contribute to, rather than detract from the character of a place. There is an intrinsically fine balance that has to be achieved when developing sensitive landscapes that involves determining just how much development a landscape can accommodate before its scenic qualities are overwhelmed.

- **Visual impact.** Provided that the proponent implements a conservative, low key development, visual impacts should be largely neutral, or even positive. The erven are position out of site of public view and occupy a comparatively small portion of the property.
- **Cultural landscape.** The use of vernacular building styles, if carried forward with sensitivity acknowledges the traditional architecture of the area. Furthermore, it will hopefully encourage others to take a more sensitive approach towards development planning.

#### 4.3 Fish traps

While we did not attempt to survey to locations of individual fish traps, we noted the presence of at least 8 stone weirs on the coastline adjacent to the property, most of these were confined to a single large gully that spanned the shallow rock strewn inter-tidal zone (Plates 4,8). On closer inspection it became apparent that the gully was largely artificially constructed, the rocks having been cleared and piled onto the side of the gully, or used to build the individual walls (Plates 5,6,7). Overall, this represents a well planned major work implying substantial amount of labour, co-ordination and leadership. Also implied by the works, is a sound understanding of the tidal system, habits of fish as well the knowledge of where to space the walls in the gully, what height to build them so as to make sequential use of the full range of the tide from low to high. What is not known is the age of this particular knowledge system. We know that tidal fish traps were used and maintained in historic times, possibly by the people who left behind the prodigious historic fishbone middens at Hotagterklip (excavated by ACO). As yet there is no proven link between the fish traps and shell middens that are common to this part of the coast.

One of the most significant aspects of this particular development site is the proximity of shell middens to fish trap sites and the potential opportunity this offers to explore the relationship between the two kinds of archaeological sites. There is also potential to explore the range of the kinds of fish that could be trapped in the coastal zone in the past as opposed to that of today by means of a contemporary modern experimental construction. To date no complexes of tidal fish traps have been properly mapped/surveyed or recorded. The outstanding examples on this part of the coast offer an opportunity to take these initial steps to further the understanding of this aspect of the national heritage.



**Plate 4** View over conservancy area towards Rasperpunt showing fish traps. Note the gully (right) with up to 6 traps in it.



**Plate 5**



**Plate 6**



**Plate 7**



**Plate 8**

### 4.3.1 Impact of development

- The fish traps are not the property of the proponent which means that there is no obligation for him to take active conservation measures, however through his personal interest in the matter, he has resolved to encourage/support research into the subject.
- The development itself will not impact any of the fish traps provided that services such as the desalination plant inlet and outlet pipes do not result in any physical or visual disturbance. In general impacts are expected to be neutral.
- Informal policing of the fish traps (and other archaeological sites) will be a positive impact of limited development, especially if awareness and a positive conservation attitude can be fostered among the residents. The establishment of a local Eco Center will contribute to raising local awareness.

## 4. Conservation of archaeological material

### 5.1 Shell middens

Besides the slow processes of natural erosion and root action, destruction of shell middens will be greatly accelerated by direct impacts such as construction of roads, services and building foundations. Almost as destructive are the effects of off-road vehicles, uncontrolled path erosion through sensitive areas. Not only do the small artifacts, bone and fragments of pottery get destroyed, but also the natural layering and the spatial layout (the way a midden is organized on the landscape). It is these subtle attributes that are so important for understanding the behavior of people who lived in the site in the first place. An undamaged archaeological site is a repository of potential information for future generations.

The basic requirements for conserving shell middens are to:

- Take measures to slow down natural erosion (wind breaks, stabilization of fragile cuttings or embankments)
- Keep people off the sites, indicate clear walk paths away from sensitive material.
- Educate people and discourage them from illegally collecting artefacts (an archaeological site is finite, once interfered with, it is damaged forever).
- Keep builders, roads and vehicles away from sensitive areas.

### 5.2 Fish traps

The tidal fish traps on the property certainly rank as among the best preserved in the Cape Province. Although not much is understood of their origins, they present a fast disappearing traditional fishing method. Because the significance of these sites is not explicit, all effort must be made to conserve them. Sadly the last time that any particular effort was made to document them (albeit inconclusively) was in 1974. It is about time that a conclusive effort was made using modern scientific techniques to understand the social processes that gave rise to their origins and use.

Within the context of Struisbaai, the fish traps been rendered fairly stable thanks to marine organisms that have bound the stones together protecting them from wave and tidal action. Sadly, the greatest source of impact has been by people who don't know what they are or

have any idea of their possible age or significance. In the past fish traps have been covered by concrete to create tidal swimming pools or modified to make sheltered slipways for launching small craft. The most common threat is slow dismantlement by generations of fishermen who displace the stones while looking for bait.

The best way to conserve these features is to:

- Enhance the significance of the features in the public eye by having them declared National (or Provincial heritage sites).
- Increase both the community and scientific understanding of the features by motivating both the authorities and research institutions to initiate a program of research to understand the historical context.
- Educate people as to what they are by means of signs on site, information displays in local museums or the site eco-center.
- Physical rebuilding of the fish traps would be generally discouraged in terms of modern conservation philosophy (which seeks to conserve original fabric). The general principal of the ICOMOS Burra Charter, an internationally recognized standard is “to change as little as possible but as much as is necessary”. The Charter also tries to encourage reconstruction rather restoration. Reconstruction involves building to scale and form, but with either modern materials or being publicly open about what is “new” as opposed to original. In these terms there is certainly, if the need arises, a case for the construction of a new experimental fish trap in preference to rebuilding an older one.

## **5. Conclusion**

Provided that the proponent carries forward the project in an ecologically and heritage sensitive fashion, and in terms of the information that was provided for compiling this report, the overall negative impacts of the proposed development are outweighed by the conservation benefits that are to be derived. There are several erven that encroach on archaeological sites requiring that either minor changes are made to the layout of erven, or sites are mitigated by means of formal archaeological sampling. Provided that the bulk of the development is restricted to the 27 erven, and that the architectural styles used are committed to being reminiscent of local vernacular styles, impacts to the character of the place will be neutral, if not positive.

The success of the conservation measures proposed to go along with this development will be dependent on implementation of heritage awareness training and a code of conservation guidelines to be adopted by any future body corporate or residents association.

### **6.1 Mitigation**

In terms of the proposed layout of the site it is suggested that:

- The ridge on which erven 9-12 are situated should be subject to trial excavation to establish if the dune top shell scatter (dune top origin of site P1) that is affected by these sites should be conserved (ie whether it contains in-situ material) and the position of the erven shifted or the sites sampled.

- Erven 1-3 must be moved (as indicated by the proponent) to avoid impacting sites P5 and P6. Measures must be taken (restrict passage of people, stabilize slope) to ensure that the sites are not impacted further.
- The establishment of an Eco Center of which part is focused on the archaeological heritage of the site is encouraged.
- The establishment of sound management principles for use by a future body corporate or residents association will be beneficial to conservation of the local heritage.
- The adoption of low key vernacular style cottages will result in a neutral-positive visual impact and acknowledge local cultural heritage.
- It is recommended that the proponent appoint a conservation architect or conservation planner (details can be obtained from Heritage Western Cape) to review the building and spatial layout once this is more final. This may be particularly useful for compiling guidelines to the treatment of areas around buildings.

## 6.2 Other considerations

Any recommendation made in this report may be subject to review of the Built Environment and Landscape Committee of Heritage Western Cape.

Any recommendation made in this report with respect to archaeological may be subject to revision by the Archaeology Plans Committee of Heritage Western Cape. Furthermore, the provincial archaeologist may wish to inspect the site before approving the mitigation recommendations contained within this report.

Five copies of this report must be lodged with the Provincial Archaeologist (Dr Antonetta Jerardino 021 4839687) for distribution among the sub-committees. One copy must be digital, one copy should be in colour.

## 6. References

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## 7. Table 1

### Archaeological sites

| Site | Period                               | Description   | Impact of development  | Coordinate<br>Deg-min-sec                            |
|------|--------------------------------------|---|--|--|
| P1   | Pre-colonial                         | Disturbed scatter in track eroded from dune top nearby. <i>Turbo sarmaticus</i> dominated. Quartzite, quartz. Silcrete. Manuports, Milled edge pebble.  | <b>Low negative</b><br>Will be impacted by access road. Potential for collection for Eco Center display.<br><br><i>Grade 3 b</i>   | 34 49 12.2<br>19 57 50.0                             |
| P2   | Pre-colonial.<br>Last 2000 years.    | Disturbed deflated scatter 'dozed area. <i>Turbo sarmaticus</i> dominated. Quartzite, quartz. Silcrete. Manuports, 1 thumbnail scraper. Pottery. Ash deposit.                                   | <b>Neutral</b><br>Potential for collection for Eco Center display.<br><br><i>Grade 3 b</i>   | 34 49 08.3<br>19 57 50.6                             |
| P3   | Pre-colonial.<br>Last 2000 years (?) | Dense scatter on top and side of dune. Many quartzite manuports. Grindstone. <i>P. longicosta</i> noticeable. Possible in-situ below dune top.  | <b>Neutral</b><br>Conservation dependent on good management.<br><br><i>Grade 3 a</i>   | 34 49 09.9<br>19 57 45.3                             |
| P4   | Pre-colonial.<br>Last 2000 years (?) | Dense scatter on side of dune. Many quartzite manuports, silcrete flake, <i>P. longicosta</i> , <i>Argenvillei</i> , <i>T sarmaticus</i> noticeable.. Possible in-situ material below dune top. | <b>? Medium negative.</b><br>Impacts may occur thru access to erf 5. May need mitigation by excavation or erf adjustment.<br><br><i>Grade 3 a</i>                          | 34 39 07.8<br>19 57 44.0                             |
| P5   | Pre-colonial.<br>Last 2000 years (?) | 30 cm thick stratified lens of shell on dune crest. Many quartzite manuports. Large lower grind stone. Wide range of south coast shell species.   | <b>High negative</b> if area is not managed well or erf 2-3 are not moved down slope. Impacts will occur thru people close to site, slope erosion.<br><br><i>Grade 2</i>   | 34 49 06.4<br>19 57 44.5                             |
| P6   | Pre-colonial.<br>Last 2000 years (?) | Dense scatter on side of dune. Many quartzite manuports. <i>P. longicosta</i> , <i>Argenvillei</i> , <i>T sarmaticus</i> & <i>welks</i> noticeable. Possible buriad lense close to ridge top.   | <b>High negative</b> if area is not managed well or erf 1-2 are not moved down slope. Impacts will occur thru people close to site, slope erosion.<br><br><i>Grade 3 a</i> | 34 49 05.8<br>19 57 42.7                             |
| P7   | Pre-colonial.<br>Last 2000 years (?) | Thin scatter on dune. Many quartzite manuports. <i>Patella sp</i> , <i>T sarmaticus</i> , <i>Haliotis midae</i> & <i>welks</i> noticeable.  | <b>Neutral</b> dependent on establishment of formal walkways and paths to keep people off the site.<br><br><i>Grade 3 b</i>  | 34 49 11.5<br>19 57 44.2<br>34 49 10.3<br>19 57 46.8 |
| P8   | Pre-colonial.<br>Last 2000 years (?) | Dense scatter on side of dune. Many quartzite manuports, silcrete flake, <i>P. longicosta</i> , <i>Argenvillei</i> , <i>T sarmaticus</i> noticeable.. Possible in-situ                          | <b>Low negative</b> as sites is very close to edge of erf 9. Activites on erf 9 may impact. Suggest trial to check for buried  | 34 49 10.8<br>19 57 47.1                             |



|            |                                   |   |   |  |
|------------|-----------------------------------|---|---|--|
|            |                                   | material below dune top. Material distributed in nearby track as well.  | lens to establish necessity of moving erf or sampling site.<br><br><i>Grade 3a</i>  |  |
| P9         | Pre-colonial. Last 2000 years (?) | Small discrete shell pile. <i>P. longicosta</i> , <i>Argenvillei</i> , <i>T sarmaticus</i> , <i>welks</i> noticeable. | <b>Neutral</b> provided that activities on erf 8 do not encroach.<br><br><i>Grade 3 a</i>                                   | 34 49 09.6<br>19 57 50.2   |
| P10        | Pre-colonial. Last 2000 years (?) | Scattered patches of disturbed shell midden along a jeep track in the back dunes.                                     | <b>Neutral</b> – lies in conservancy area.<br><br><i>Grade 3 b</i>  | Between<br>34 49 07.6<br>19 57 47.3<br>and<br>34 49 07.0<br>19 57 45.2 |
| <b>P11</b> | Pre-colonial. Last 2000 years (?) | Shell midden on dune top in conservancy area. Possible buried lens capping dune.                                      | <b>Neutral</b> - lies in conservancy area. Walkways to beach could be used to “showcase” this site.<br><br><i>Grade 3 a</i> | 34 49 12.5<br>19 57 43.2   |