

Impact status	Negative	Negative	Negative		
Intensity	Moderate	Minor	Minor		
Duration	Long-term	Long-term	Long-term		
Extent	Regional	Local	Local		
Consequence	Medium	Low	Low		
Probability	Certain	Highly Likely	Possible		
Frequency	Always	Always	Always		
Significance	Negative Medium	Negative Low	Negative Very Low	As Existing	As Existing

ASSESSMENT OF RISKS

Likelihood of mitigation measures being implemented successfully (mitigation reliability)	Highly likely.
Degree to which impacts can be avoided, managed, or mitigated	Can be mitigated.
Degree to which impacts can be reversed	Existing impacts cannot be reversed.
Degree to which impacts could cause irreplaceable loss of resources	Unlikely.
Assessment confidence	High.
Gaps and limitations	Information adequate for decision-making.

7.6 Heritage Resources

PREVIOUS STUDIES

The heritage resource impact of aquaculture developments in Zone 10 were assessed as part of two previous environmental assessments for: the Change in Land Use of the Remaining Area within the Coega IDZ (SRK, 2006); and the Aquaculture Operation for the Grow-Out of Prawn Larvae (CEN, 2009). A study by Binneman (2008) supported the assessment by CEN (2009). The recommendations of these assessments were considered in this EIA.

The 2006 Change in Land Use EIA by SRK recommended that a Phase 1 heritage assessment be undertaken. In 2010, the CDC commissioned such a heritage assessment for the whole of the IDZ by Almond (2010), Bennie (2010) and Binneman (2010) that covered palaeontological, historical and archaeological heritage components respectively. The 2010 studies were reviewed by SAHRA and they issued a document (SAHRA, 2011) in which recommendations for the management of all the identified sites within the Coega IDZ were stipulated, as well as some general recommendations. The recommendations¹² specific to Zone 10 and the ADZ were incorporated into the EIA and EMPr.

A recent heritage screening study by CTS Heritage Specialists (2015) concluded that the previous heritage assessments provided a high level of coverage throughout the IDZ, including Zone 10 and the ADZ. It should be noted that the 2010 archaeological study by Binneman as well as previous archaeological surveys also covered the portion of land (~22 ha) where the ADZ overlaps with Farm Coegas River Mouth 303 Portion 8 owned by Transnet, located outside the boundary of the IDZ. This portion of land is occupied by the old abalone farm along the coast, dense alien vegetation to the back of the abalone farm, and then high mobile dunes where different entities have mining rights and a section of the dunes has already been mined as part of Glendore’s Sonop Quarry.

Some of the identified archaeological sites are located in areas earmarked to be mined prior to the establishment of the ADZ infrastructure and structures. The activities of the mining companies are monitored by the CDC and their independent ECO. The impacts of mining and the destruction of these sites by third-party mining companies therefore fall outside the scope of this EIA.

CURRENT STATE AND DESCRIPTION OF HERITAGE RESOURCES

¹² General recommendations for the IDZ to be addressed by the CDC are not repeated in the EMPr for the ADZ.

Palaeontology

Palaeontological heritage is not site-specific but related to entire geological units or formations and is therefore linked to the bedrock geology of the area, which is discussed and illustrated in Section 6.2. Natural levels of bedrock exposure within the Coega IDZ are generally very low due to extensive cover by overlying drift material; soil, alluvium, in situ weathered material, surface calcrete (pedogenic limestone) and dense vegetation. Man-made excavations such as road and railway cuttings, storm water drainage channels, reservoirs and quarries provide opportunities to examine and sample fresh, potentially fossiliferous bedrock. Fresh excavations made during construction in fossil-bearing formations are quite likely to expose fossil heritage of palaeontological significance. Almond (2010) described the paleontological potential and sensitivity of the different formations that are found at surface on and around the ADZ as follows:

Kirkwood Formation – Early Cretaceous age (136 million years old)

Important, but rare fossils of dinosaurs and plants are also known from the Kirkwood Formation, but so far only outside the IDZ. Not found on surface on or near the ADZ, only to the south closer to the Coega River.

Sundays River Formation – Early Cretaceous age (136 million years old)

The grey to greenish-grey mudrocks and subordinate calcareous sandstones of the Sundays River Formation were laid down in a range of estuarine to offshore marine shelf settings. Of the dozen or more natural and artificial exposures of these sediments examined within the Coega IDZ, mostly along the eastern escarpment of the Coega River Valley, almost all yielded a range of shelly invertebrate fossils. The palaeontological sensitivity of this formation is therefore rated as high.

Alexandria Formation of Miocene / Pliocene age (7 to 5 million years old)

The Alexandria Formation is known to be richly fossiliferous, and a number of the key fossil localities within this unit are situated in the region. However, field evidence suggests that much of this lime-rich succession has been diagenetically altered in the area and most new excavations expose few or no fossils of value.

Salnova Formation of Mid Pleistocene to Holocene age (less than a million years old)

This formation is the youngest highly fossiliferous marine succession within the Coega IDZ and has a proven fossil record of high scientific importance. It crops out intermittently along the coastline in Zone 10. The formation comprises a spectrum of well-indurated sandy and conglomeratic beach deposits that form low rocky benches close to modern sea level and are locally rich in marine shell remains. The overall palaeontological sensitivity of the Salnova Formation is judged to be high, although many occurrences are not especially shell-rich or contain mainly fragmentary remains.

A geologically important section of the Salnova Formation has been identified in Zone 10 on the eastern boundary of the IDZ (Figure 7-12). Here the conglomeratic and sandy Salnova beds unconformably overlie the Sundays River Formation and are overlain in turn by consolidated aeolianites of the Nahoon Formation. This low coastal rock platform is indicated on the Coega OSMP, Figure 2-9 (label 24), and is further discussed in Table 7-3 (item P01 (GS10)) below. It is located some distance away from the ADZ but similar fossil-bearing sediments may occur elsewhere along the coast. Routes for marine pipelines and infrastructure close the seashore may intersect this formation.

Nanaga, Nahoon and Nahoon and Schelm Hoek Formations

These formations have a low palaeontological sensitivity.

Historical

Hougham Park Farm

The farm was originally called Samson's Kraal and was owned by a T.I. Ferreira. The core of the homestead has been dated back to 1817. Hougham Hudson bought the farm from the Ferreriras in the 1830s and renamed it Hougham Park. Three families owned farm since that date; the Hudsons for 60-70 years, the Denfords and the Crews from 1945 to 2007. The farm was bought by the CDC in 2007.

According to Drysdale (2015), during the time the Crews owned the farm, a shaft was sunk through the limestone and tunnels were made to find fresh water streams flowing to the sea from the mountains; Edgar Crews introduced oyster farming to Port Elizabeth and he supplied many restaurants all over the country for a number of years; dunes were stabilized using barriers of gravel, limestone, dead branches and sowing of rooikrans seeds; a gravel road down to the beach was cleared to transport shell grit which was sifted and dried in a kiln for the poultry industry; the gravel road was extended to open up the beachfront to visitors, mainly fisherman; and a camping ground was established.

The 2010 heritage assessment for the Coega IDZ included a survey of Zone 10 by Bennie (2010). The sites recorded in the report are listed in Table 7-3 below and consists of the Hougham Park farmstead, including the Main House, reputedly built in the 1830s by 1820 settler Hougham Hudson, as well as the an outbuilding known as the 'Egg House', which is thought to be the first house on the site (named the 'Cottage' by Bennie (2010)). There are two burial grounds; the cemetery of the Hudson and Crews families, and a cemetery used by Hougham Park farm workers. The CDC has constructed palisade fencing around the existing grave sites and reasonable access are provided for families / communities.

In July 2015, the CDC was informed that the Hougham Park Main House had been vandalized. The remote location and isolation of the area makes it difficult to control vandalism as security guards are often intimidated, as was the case at the old SeaArk pilot prawn facility, but repairs to the roof of the house have been completed and further repairs are planned based on the recommendations by an independent heritage specialist (Andrea Shirley, pers. comm).

Maritime History

No exact localities of shipwrecks along this part of the coast have been plotted. Three shipwrecked sailors from the Amsterdam, which were grounded in 1817, are known from the records to be buried in the dunes and have not been found. These skeletal remains could be displaced by excavation either by natural or man-made means.

Archaeology

Zone 10 has been investigated several times by Binneman (1994, 2008, 2010), Webley (2007) and Kaplan (2007) (as referenced in Binneman, 2010) but the impenetrable alien vegetation in the coastal dune area as well as in large parts of the areas inland of the dunes made it difficult to survey the area. Archaeological materials are usually associated with exposed calcrete floors or black soils ('old vlei deposits') in the bays between the slow eastward moving sand dunes. The calcrete bedrock covered by a thin layer of dark soil does not allow for any deep archaeological deposits.

In general, the study site is relatively poor in large and important archaeological sites but the area between the shifting sand dunes and the Coega River mouth to the west, is rich in small shell middens and accumulations of hundreds of stone tools. However, the sites found may represent only a small number of sites that exist because most of the sites are likely to be covered by dunes and dense vegetation. Development of the ADZ may expose more sites. All the archaeological sites recorded to date in Zone 10 are located in the coastal dune area (Figure

7-12). The coastal strip in Zone 10 is one of the most sensitive areas of the Coega IDZ and the possible incidence of occurrence of archaeological material is high (SAHRA, 2011).

The shell middens found were small with little depth of deposit, dominated by one shellfish species and with virtually no cultural or food remains. Although the 'quality' of the archaeological remains and features were in general poor, it is possible to conclude that the remains date mainly from the past 5 000 years. The stone tools in the shifting dunes and along the exposed beach areas were in secondary context and consisted mainly of quartzite flakes and chunks. The evidence from occasional well patinated (weathered through use) Middle Stone Age stone artefacts indicated that the area was also inhabited between 30 – 120 000 years ago. Although Earlier Stone Age tools (older than 120 000 years) are common in the wider area, none were found in Zone 10.

Along the western beach and adjacent dune fringe, occasional weathered/sand polished Middle Stone Age and Later Stone Age stone tools were found along the immediate beach area where the calcrete floor was exposed or covered thinly by dune sand. These stone tools are of low cultural significance (Binneman 1994, 2010).

Not many sites were found in the high moving sand dunes. It appears the sites are associated with 'dune deflation bays' and most of the sites that were found in earlier surveys could no longer be located in the 2010 survey (Binneman, 2010), assuming these have been covered by moving sand. More sites could be covered by sand and vegetation. Specific sites documented by Binneman (2010) are tabled below. An area with midden scatters that was recorded in centre of the Zone 10 vegetated coastal foreland in 1994 could not be located during the 2010 survey and is assumed to be covered by sand and vegetation. The eastern beach and dune areas in Zone 10, to the east of the ADZ, are associated with wide, open, flat sand field with small low dunes where there are calcrete and quartzite gravels exposed by the wind. Occasional stone tools, chunks and flaked pieces have been found on the exposed gravels but these hard surfaces have been damaged / demolished by off-road vehicles over the years. Areas with randomly scattered stone tools recorded by Binneman (2010) are tabled below.

Table 7-3: Heritage Sites Documented in Zone 10, within or near the ADZ

No	OSMP No	Site Description	Specialist Recommendations	Latitude Longitude	SAHRA Requirements for Site (SAHRA, 2011)
Archaeological (Binneman, 2010)					
A01	N/A	Mobile Dunes (Outside ADZ) Three small low sensitivity shell midden scatters of <i>Perno perno</i> . Located outside ADZ within the Sonop Quarry mining area.	Low sensitivity. Site to be recorded before destruction.	As per Figure 7-12. 33.46.632S 25.42.732E	The following is required prior to disturbance: Site to be recorded and report to be submitted; Destruction permit needed; Based on outcome of site recording, a Phase II permit and survey may be required.
A02	N/A	Mobile Dunes (Outside ADZ) A scatter of few quartzite stone tools and pottery fragments. Located outside ADZ within the Sonop Quarry mining area.	Low sensitivity. Site has been sufficiently recorded.	As per Figure 7-12. 33.46.659S 25.42.767E	Destruction permit needed prior to disturbance.
A03 (023)	N/A	Mobile Dunes (Inside ADZ) A scatter of very likely KhoeSan pottery fragments among the grass on a large deflation bay with few fragments of <i>Donax serra</i> nearby. Same as site Site 87057 (Coega 023) Grade IIIc as per CTS Heritage	Low sensitivity. Pottery to be collected before destruction.	As per Figure 7-12. 33.46.629S 25.42.855E	The following is required prior to disturbance: Site to be recorded and report to be submitted; Destruction permit needed; Based on outcome of site recording, a Phase II permit and survey may be required.

No	OSMP No	Site Description	Specialist Recommendations	Latitude Longitude	SAHRA Requirements for Site (SAHRA, 2011)
		Specialists (2015).			
A04	N/A	Mobile Dunes (Inside ADZ) <i>Perno perno</i> shell scatter with few associated bone fragments.	Low sensitivity. Site to be recorded before destruction.	As per Figure 7-12. 33.46.589S 25.42.874E	The following is required prior to disturbance: Site to be recorded and report to be submitted; Destruction permit needed; Based on outcome of site recording, a Phase II permit and survey may be required.
A05	N/A	Mobile Dunes (Inside ADZ) <i>Perno perno</i> shell midden scatter with few associated possibly KhoeSan pottery fragments and stone tools.	Low sensitivity. Site to be recorded before destruction.	As per Figure 7-12. 33.46.692S 25.42.148E 33.46.662S 25.42.125E	The following is required prior to disturbance: Site to be recorded and report to be submitted; Destruction permit needed; Based on outcome of site recording, a Phase II permit and survey may be required.
A06	N/A	Eastern Dunes (Outside ADZ) Small midden scatters.	Low sensitivity. Site to be recorded before destruction.	As per Figure 7-12. 33.46.692S 25.42.148E	The following is required prior to disturbance: Site to be recorded and report to be submitted; Destruction permit needed; Based on outcome of site recording, a Phase II permit and survey may be required.
A07	N/A	Eastern Dunes (Outside ADZ) Stone tools on exposed calcrete floor. Midden scatter.	Low sensitivity. No further recording required.	As per Figure 7-12. 33.46.056S 25.44.373E	Destruction permit needed prior to disturbance.
Old/ Other	N/A	Sites marked as Old/Other on Figure 7-12 (blue dots). Include sites indicated on Map 10 & 11 in Binneman (2010) but where no details or coordinates were provided, also include sites mapped and observed in earlier surveys, but that could not be found during recent surveys by Binneman (2008, 2010) (Figure 7-13 and Figure 7-14). Two old sites in the ADZ: Two sites were plotted in the ADZ in the Calcium Products (Pty) Ltd mining area but may have been destroyed during past mining.	General recommendations, see below.	As per Figure 7-12.	General recommendations, see below.
Historical (Bennie, 2010)					
H01a	OSMP 18	Hougham Farm House and Homestead. Main House recently vandalised. CDC in process with repairs based on	Hougham Park farmstead, the Main House and the Cottage (Egg House) and most of the grave sites, to be	33°46'3.20"S 25°42'51.46"E	-

No	OSMP No	Site Description	Specialist Recommendations	Latitude Longitude	SAHRA Requirements for Site (SAHRA, 2011)
		recommendations by independent specialists.	preserved and conserved.		
H01b		The Cottage (Egg House) at Hougham Farmstead. High significance building, to be preserved.	SAHRA to be informed of any alterations to buildings or other built structures older than 60 years.		-
H02	OSMP 10	Family Cemetery. Demarcated by a vibracrete fence and wooden gate.		33°46'3.01"S 25°42'55.57"E	General recommendations for burial grounds (already adopted by CDC).
H03	OSMP 01	Hougham Park 2A Cemetery. Demarcated with a vibracrete wall. Located some distance from the road.		33°46'17.17"S 25°43'12.59"E	
H04	N/A	Four reputed artesian wells and freshwater springs (Kate Crews, pers. comm, in Bennie, 2010).	N/A		-
		a) Near the beach with a pump house and building that supplied the main house		Not known	-
		b) covered by SeaArk facility		33°46'40.44"S 25°43'22.54"E	-
		c) near campsite		33°46'28.74"S 25°43'43.80"E	-
		d) not known		Not known	-
H05	N/A	Oyster House Remains	N/A	33°46'37.28"S 25°43'35.33"E	-
Palaeontological (Almond, 2010)					
P01 (GS10)	OSMP 24	Along beach on eastern boundary of Zone 10, some distance away from the ADZ. Low coastal rock platform with exposure of the contact between the Salnova and the Sundays River Formations and an ancient fossiliferous dune of Nahoon Formation. Officially designated stratotype E locality of Salnova Formation (Le Roux, 1991, in Almond, 2010).	Protect outcrop from development or disturbance.	33°45'53.82"S 25°44'58.72"E	This area must be protected from damage and development.
P02 (GS09)	OSMP 27	Near ADZ on boundary with Zone 7. North of Hougham Park farmstead, on eastern side of the gravel track. Hougham Farm Limestone. Long trench into surface limestones. Exposures of large fossilized root systems in ancient dune sands of Nanaga Formation. Abundant shells of land snails.	Protect northern face of trench from damage or development. Trace fossils are easily degraded; therefore they should be studied soon.	33°45'50.40"S 25°42'43.20"E	-

Note: For sites A01 - A07, the coordinate points and locations mapped on Map 10 & 11 in Binneman (2010) do not correspond. Sites marked on Figure 7-12 in this report were plotted using Map 10 & 11 in Binneman (2010). These maps are provided below for reference purposes.

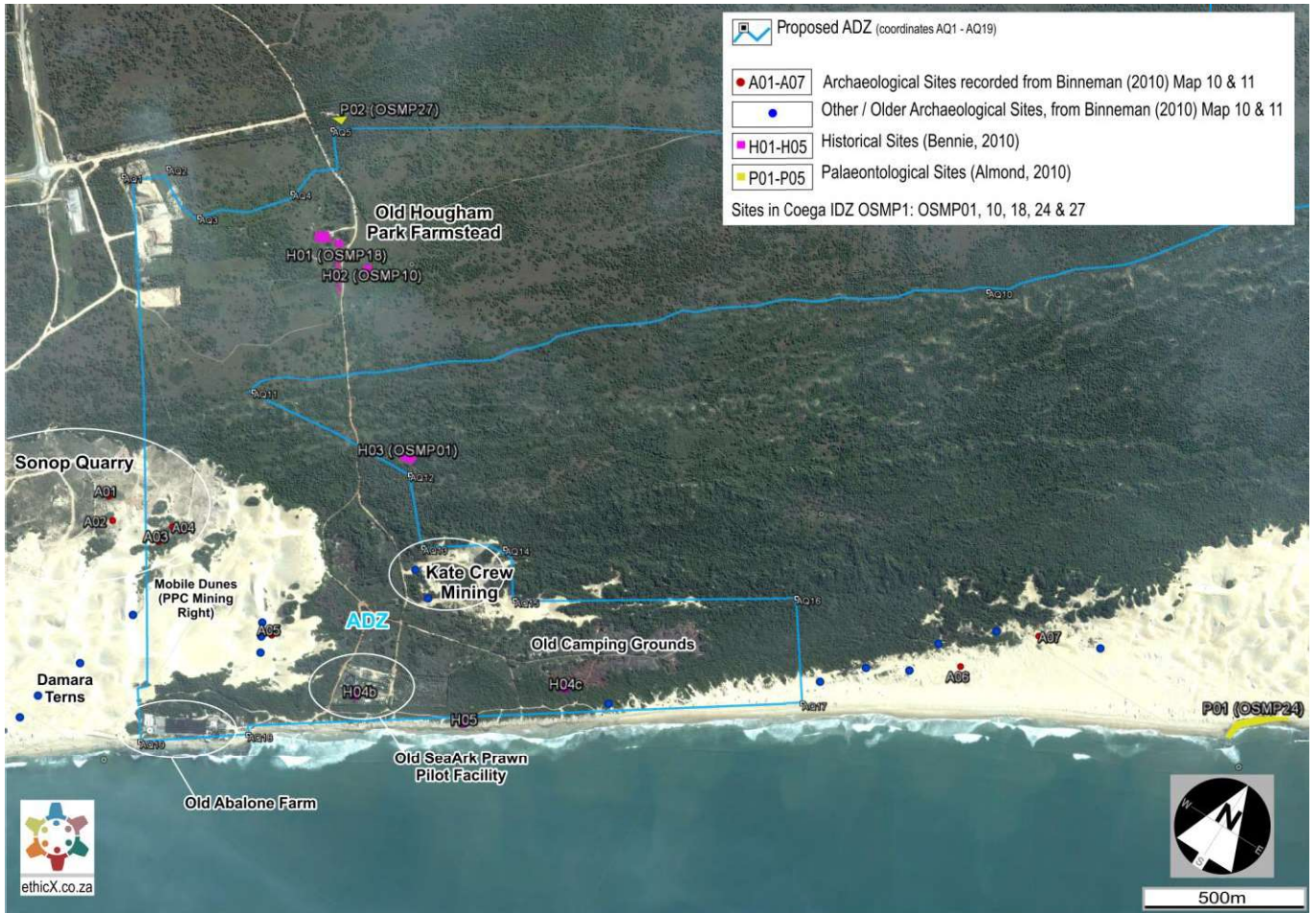


Figure 7-12: Heritage Sites Recorded in or near the ADZ (as detailed in Table 7-3)
 (Map optimised to be viewed electronically)

IDENTIFICATION AND ASSESSMENT OF IMPACTS

The remote and isolated location of the site has led to vandalism of historical buildings (existing impact). Appropriate development and added human presence in the area, with associated security and access control, could reduce the likelihood and extent of vandalism occurring again.

There are a number of known heritage sites located within and close to the ADZ. With the recommended mitigation measures in place and planning of the ADZ master layout plan with these sites in mind, any significant negative impacts can be avoided.

There is a real possibility that unknown and unmarked heritage sites could be discovered / unearthed during the development of the ADZ, particularly during the early stages of construction associated with vegetation clearance, site grading and excavations. With correct management and mitigation measures in place, the discovery of further heritage sites would provide opportunities to document the sites and enhance the heritage knowledge base of the area.

MITIGATION MEASURES AND DESIGN CRITERIA

General

- The EIR will be submitted to ECPHRA and uploaded onto SAHRA’s SAHRIS (online system) website.
- For recorded heritage sites, adhere to specific recommendations for each of the sites as per specialist reports by Almond (2010), Bennie (2010) and Binneman (2010), and SAHRA (2011), as summarised above.
- There is a likelihood that new heritage discoveries are made during construction (vegetation clearance

and site grading). If any evidence of heritage sites or remains (e.g. shell middens, remnants of stone-made structures, indigenous ceramics, bones, stone artefacts, ostrich eggshell fragments, shipwrecks, marine shell and charcoal/ash concentrations), unmarked or marked human burials, fossils or other categories of heritage resources are found during construction, ECPHRA to be alerted immediately, and an accredited professional archaeologist or palaeontologist must be contacted as soon as possible to inspect the findings (SAHRA, 2010).

- *If newly discovered heritage resources prove to be of significance, a Phase 2 rescue operation might be necessary. On receipt of a satisfactory mitigation (Phase 2) permit report from the archaeologist and/or palaeontologist, SAHRA to make further recommendations in terms of the possible destruction or preservation of the heritage resources (SAHRA, 2010).*

Archaeology

- *Recorded sites A03, A04 and A05 are located within the footprint of the ADZ. The following is required before disturbance to the sites may take place.*
 - *Sites to be recorded and a report to be submitted to the ECPHRA.*
 - *A destruction permit needed prior to disturbance.*
 - *Based on outcome of the site recording, a Phase II permit and survey may be required.*
- *Vegetation clearance in the ADZ to be done under the supervision of an archaeologist and in short strips, either by hand or with small machinery or with the least invasive method reasonably possible. This is to allow for documentation and/or rescue of any new discoveries (SAHRA, 2011).*
- *An archaeologist to be present on site to monitor earth moving activities (SAHRA, 2011).*
- *General recommendations for new heritage discoveries to be followed if evidence of heritage sites or remains is found (see above, as recommended by SAHRA, 2011).*

Palaeontology

- *A palaeontologist or an ECO trained by a palaeontologist on how to search for possible fossil remains in freshly excavated material, to monitor earth moving activities involving contact with the Salnova Formation (Almond, 2010 and SAHRA, 2011).*
- *An ECO trained by a palaeontologist on how to search for possible fossil remains in freshly excavated material, to inspect excavations in the Alexandria Formation and notify a palaeontologist if rich fossil remains are encountered. Unless rich fossil remains, such as seen at the main Coega limestone quarry, are encountered during excavation, general palaeontological mitigation is not automatically required for the Alexandria Formation (Almond, 2010).*
- *Any excavations in the Salnova Formation, Sundays River and Kirkwood Formations to be examined by a professional palaeontologist while fresh bedrock is still exposed. The presence of a palaeontologist is required on site soon after exposure. The palaeontologist may make recommendations for further action to safeguard fossil heritage of the exposed material (Almond, 2010).*

Historical Sites

- *Hougham Park homestead, the Main House and the Cottage (Egg House) and most of the grave sites, to be preserved and conserved (Bennie, 2010).*
- *The master layout plan for the ADZ to take cognisance of historical buildings and burial grounds and need to allow reasonable access by family members and historical interested groups.*
- *Potential uses of the buildings as part of the ADZ and options to safeguard them from vandalism to be explored, with input by a heritage specialist.*
- *SAHRA to be informed of any alterations to buildings or other built structures older than 60 years (Bennie, 2010).*
- *Extreme care to be taken when excavating in the dune, beach and intertidal areas. Activities in these areas to be monitored by a maritime archaeologist. If any shipwreck material or human remains are found, work is to be stopped immediately and a representative of ECPHRA or a maritime archaeologist to be informed immediately. Work not to resume until the site has been investigated (Bennie, 2010).*

- All graves, including the unmarked ones, must be protected and conserved (SAHRA, 2011).

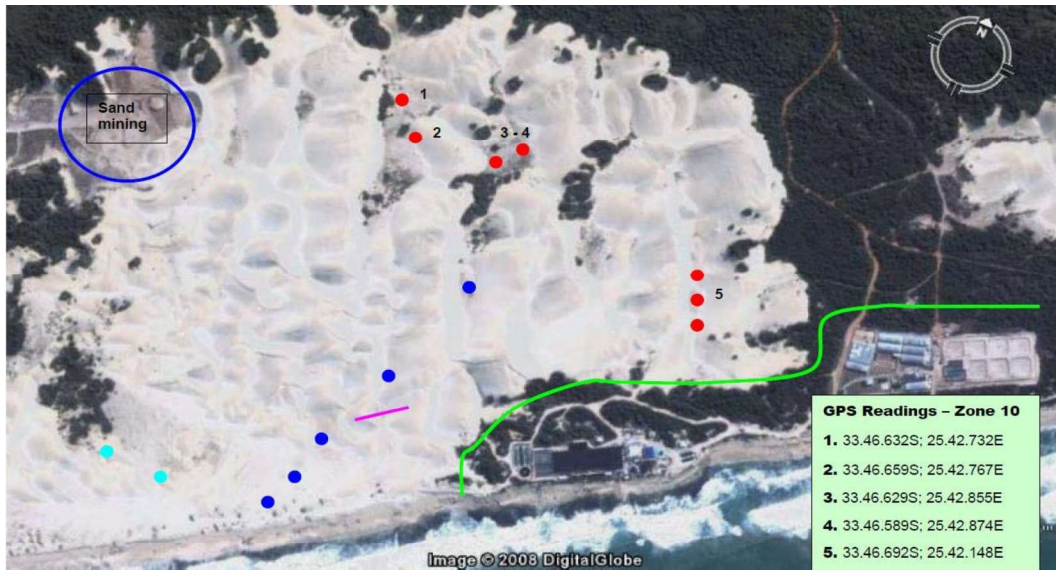


Figure 7-13: Map 10 from 2010 Archaeological Report (Binneman, 2010) showing archaeological sites in the western mobile dune area of Zone 10

[Green] Highly disturbed area, [Pink] Possible area where human remains were found, [Turquoise] Sites recorded during 1994 (Binneman). [Blue] Sites recorded during 2007 (Webley), [Red] Sites recorded during 2008-10 (Binneman). Most of earlier sites not found during recent surveys.

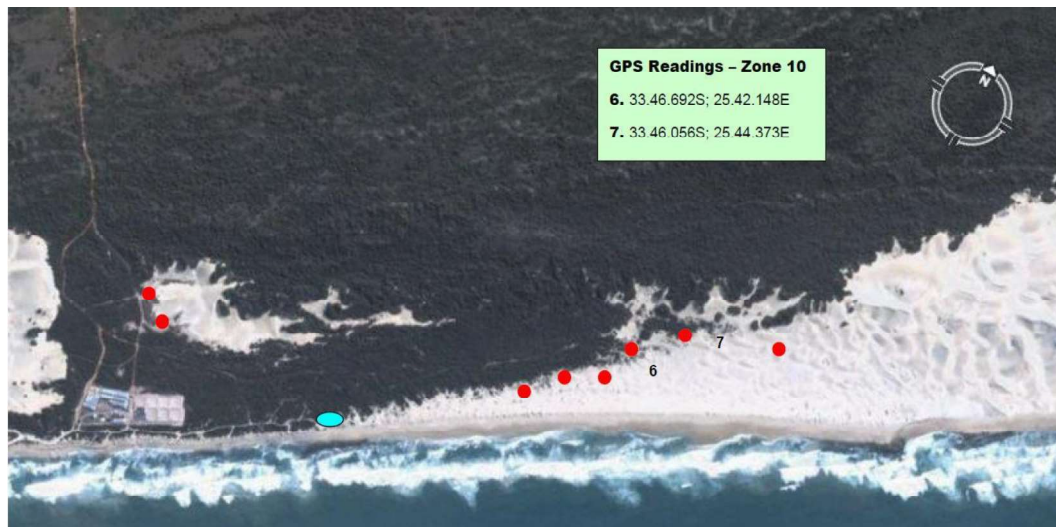


Figure 7-14: Map 11 from 2010 Archaeological Report (Binneman, 2010) showing sites and material along the eastern dune area in Zone 10

[Blue] Shell midden scatter and stone tools recorded in 1994 (Binneman) but not found again in 2010. [Red] Sites recorded in 2008-10 (Binneman).

RATING OF IMPACTS

	Existing Impact	Project Impact		Cumulative Impacts with Project Mitigation	No Go Development
		Unmitigated	Mitigated		
Nature of the Impact	<i>Risk of vandalism due to limited human presence and lack of security. Destruction of heritage sites during site clearance, grading, earthworks and excavations. Discovery of undocumented heritage sites and opportunities to enhance heritage knowledge base.</i>				
Impact status	Negative	Negative	Positive	Positive	
Intensity	Major (vandalism)	Major	Major	Major	
Duration	Permanent (unless repaired to original condition)	Permanent	Permanent	Permanent	
Extent	Site	Site	Site	Site	
Consequence	High	High	High	High	
Probability	Certain	Certain	Highly likely	Highly likely	
Frequency	Sporadic	Sporadic	Sporadic	Sporadic	
Overall Significance of Impacts	Negative Medium	Negative Medium	Positive Low	Positive Low	

ASSESSMENT OF RISKS

Once heritage sites are destroyed, impacts cannot be reversed. Management measures are aimed at avoidance of impacts and on documenting heritage finds before removal or destruction to improve heritage knowledge base.

NO-GO DEVELOPMENT

If the ADZ was not developed, the negative impacts will be avoided but the potential opportunities will also not materialise. If other industries were to develop on the site, the impacts would likely be the same since the impacts are associated with the physical footprint of the development and not the type of industry.

CONCLUSIONS

There are no unacceptable risks or impacts. With the proposed mitigation measures implemented, the overall impacts could be positive as there is potential to enhance heritage scientific knowledge base if new heritage sites are found and researched.

7.7 Visual

PREVIOUS ASSESSMENTS

The visual impacts of aquaculture development throughout Zone 10, and of industrial development in the IDZ as a whole, were assessed in the 2006 change of land use EIA for the Coega IDZ remaining areas (SRK, 2006). The study considered tourism in Algoa Bay, including visitors to the nearby bird islands, as a receptor. The study concluded that based on viewing distances, the presence of the port and IDZ as a whole and thus expectations of visitors, the visual impacts of aquaculture development in Zone 10 would be low if structures were designed not to be intrusive.

ASSESSMENT OF IMPACTS

Based on the development proposals by prospective investors in the ADZ, visits to various aquaculture developments and desalination plants in the Eastern and Western Cape, and a comparison of the development plans and photographs of aquaculture development, as well as observations by the EAP during a tourism boat trip to St Croix Island, the overall impact rating of the 2006 EIA is supported but the actual footprint of the ADZ is smaller, especially the section along the coast, than the development footprint assessed in 2006.

A small portion of the site, in the north, is located immediately adjacent to the N2 but due to the topography that slopes away from the road reserve down to the shoreline, and the road level that is below the land in the ADZ, visual exposure is very limited. The only notable impacts are towards the shoreline. The shoreline is not routinely accessed by visitors or tourists due to its location in the IDZ. Visual impacts could arise along the shoreline during construction of infrastructure such as marine pipelines and pump stations but these impacts are local and