EnviroAfrica
Environmental Planning and Impact Assessment Consultants
Omgewingsbeplanning en Impakbeoordeling Konsultante

GROTTO PARKING AREA PROTECTION WORKS

ERF 4771, HERMANUS

PROPOSED GROTTO BAY EAST PARKING AREA PROTECTION WORKS ON ERF 4771, HERMANUS.

Draft Basic Assessment Report

APRIL 2014

GROTTO PARKING AREA PROTECTION WORKS

ERF 4771, HERMANUS

BASIC ASSESSMENT REPORT SUBMITTED IN TERMS OF REGULATIONS PROMULGATED IN TERMS OF SECTION 24(5) AND 24M, READ WITH SECTION 44 OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT 1998 (ACT No.107 OF 1998) AS AMENDED

PROPOSED GROTTO BAY EAST PARKING AREA PROTECTION WORKS ON ERF 4771, HERMANUS.

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PROJECT No: 14/03/302

Basic Assessment Report in terms of the NEMA Environmental Impact Assessment Regulations, 2010

AUGUST 2010

Kindly note that:

1. This **Basic Assessment Report** is the standard report required by DEA&DP in terms of the EIA Regulations, 2010 and must be completed for all Basic Assessment applications.
2. This report must be used in all instances for Basic Assessment applications for an environmental authorisation in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA), as amended, and the Environmental Impact Assessment Regulations, 2010, and/or a waste management licence in terms of the National Environmental Management: Waste Act, 2008 (Act 59 of 2008) (NEM: WA), and/or an atmospheric emission licence in terms of the National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004) (NEM: AQA).
3. This report is current as of 2 August 2010. It is the responsibility of the Applicant / EAP to ascertain whether subsequent versions of the report have been published or produced by the competent authority.
4. The required information must be typed within the spaces provided in the report. The sizes of the spaces provided are not necessarily indicative of the amount of information to be provided. It is in the form of a table that will expand as each space is filled with typing.
5. Incomplete reports will be rejected. A rejected report may be amended and resubmitted.
6. The use of "not applicable" in the report must be done with circumspection. Where it is used in respect of material information that is required by the Department for assessing the application, this may result in the rejection of the report as provided for in the regulations.
7. **While the different sections of the report only provide space for provision of information related to one alternative, if more than one feasible and reasonable alternative is considered, the relevant section must be copied and completed for each alternative.**
8. Unless protected by law all information contained in, and attached to this report, will become public information on receipt by the competent authority. If information is not submitted with this report due to such information being protected by law, the applicant and/or EAP must declare such non-disclosure and provide the reasons for the belief that the information is protected.
9. This report must be submitted to the Department at the postal address given below or by delivery thereof to the Registry Office of the Department. No faxed or e-mailed reports will be accepted. **Please note that for waste management licence applications, this report must be submitted for the attention of the Department's Waste Management Directorate (tel: 021-483-2756 and fax: 021-483-4425) at the same postal address as the Cape Town Office Region A.**
10. Unless indicated otherwise, two electronic copies (CD/DVD) and three hard copies of this report must be submitted to the Department.

DEPARTMENTAL DETAILS

CAPE TOWN OFFICE REGION A (Cape Winelands, City of Cape Town: Tygerberg and Oostenberg Administrations)	CAPE TOWN OFFICE REGION B (West Coast, Overberg, City of Cape Town: Helderberg, South Peninsula, Cape Town and Blaauwberg Administrations	GEORGE OFFICE (Eden and Central Karoo)
Department of Environmental Affairs and Development Planning Attention: Directorate: Integrated Environmental Management (Region A2) Private Bag X 9086 Cape Town, 8000 Registry Office 1st Floor Utilitas Building 1 Dorp Street, Cape Town Queries should be directed to the Directorate: Integrated Environmental Management (Region A2) at: Tel: (021) 483-4793 Fax: (021) 483-3633	Department of Environmental Affairs and Development Planning Attention: Directorate: Integrated Environmental Management (Region B) Private Bag X 9086 Cape Town, 8000 Registry Office 1st Floor Utilitas Building 1 Dorp Street, Cape Town Queries should be directed to the Directorate: Integrated Environmental Management (Region B) at: Tel: (021) 483-4094 Fax: (021) 483-4372	Department of Environmental Affairs and Development Planning Attention: Directorate: Integrated Environmental Management (Region A1) Private Bag X 6509 George, 6530 Registry Office 4th Floor, York Park Building 93 York Street George Queries should be directed to the Directorate: Integrated Environmental Management (Region A1) at: Tel: (044) 805 8600 Fax: (044) 874-2423

DEPARTMENTAL REFERENCE NUMBER(S)

File reference number (EIA):	
File reference number (Waste):	
File reference number (Other):	

PROJECT TITLE

GROTTO BAY PARKING AREA REHABILITATION, HERMANUS

DETAILS OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONER (EAP)

Environmental Assessment Practitioner (EAP):	***EnviroAfrica*** Environmental Planning and Impact Assessment Consultants		
Contact person:	Charel Bruwer		
Postal address:	P O Box 4		
	ONRUS	Postal code:	7201
Telephone:	(028)316 2888	Cell:	082 8050 190
E-mail:	charel@enviroafrica.co.za	Fax:	086 513 2141
EAP Qualifications	M.Sc Nature Conservation(Cum Laude) (Stellenbosch), EIA-Short Course(UCT), Short Course in Negotiationg Skills(Institute for Advanced Training-Dept of Education),Short Course on Conflict Management and Dispute Resolution(CDR Associates),Short Course on Public Participation(Prxis-Canada),Training Course for trainers in Social Impact Assessment(IAIA). Attendance of a number of National and Provincial EIA Training Workshops		
EAP Registrations/Associations	South African Council for Natural Scientific Professions registration as Environmental Scientist. Reg No 401506/83		

Details of the EAP's expertise to carry out Basic Assessment procedures

The EAP has 42 years experience in the environmental impact assessment and management field of which 8 years was with the Cape Town City Council, 22 years with the national Dept of Water Affairs and Forestry and 13 years as a principal in a private consultancy. The EAP has conducted numerous environmental impact assessments, ran large public participation programmes and managed numerous Environmental Task Groups for large scale water resource developments at the national and provincial level. During the last four years the EAP has completed and obtained environmental authorisations for ~18 Basic Assessment Reports and 13 Environmental Impact Reports on studies conducted. During this period the EAP has also compiled ~32 Environmental Management Plans and acted as Environmental Control Officer on ~17 occasions.

SECTION A: ACTIVITY INFORMATION

1. PROJECT DESCRIPTION

(a) Is the project a new development?	YES	**NO X**

(b) Provide a detailed description of the development project and associated infrastructure.

The project consists of the proposed Grotto Bay East parking area protection works to repair the damage done during a storm event during August 2012. Due to the natural characteristics of dune formation, the natural outlet for the Klein River estuary was blocked by the dunes that formed after vehicle access was banned some years ago. When the Klein River estuary filled with water from the upstream catchment it took a different path of least resistance to breach and the outlet then flowed past the Grotto Bay east parking area. This breach coincided with an extreme offshore storm condition and spring tide. As a result of these conditions and the position of mouth breaching right against the man-made parking lot embankment, scour conditions caused a partial collapse of the bank. This situation was exacerbated during the winter season of 2013, to the extent that the dunes have been cut back to within 6 metres of the coastal road. Temporary barriers are currently in place to prevent the public or cars approaching too close to the unstable bank of the parking area.
In order to find a solution to the problem there are a number of options. The first and quickest, but not a permanent solution would be sloping of the area to remove the dangerous bank to the public and cars, by sloping it to a slope of ~1:2. This would be an emergency remediation and would require permission to implement this sloping as an emergency measure. The more permanent solutions would consist of sandbag protection where very large geotextile bags are filled with sand from the area of small sand dunes that have formed, ~650 metres to the east where the mouth breaching have been managed in the past and placed on the sloped face of the parking area. These bags have a dimension of 2.3mX2.0mX0.5m when filled with sand and weigh ~4 tons each. They are placed in overlapping fashion up the slope for protection. Another option is to achieve the same protection effect by means of large rock protection. Rock would have to be sourced and brought into the area and placed in a protective barrier. The last option would be to make use of a concrete barrier to protect the slope of the parking area. The crux of the matter is that the mouth breach needs to be moved back eastwards to prevent the very high potential of eventual loss of the coastal road due to the back-scour action at the present mouth position
The area that requires protection is ~150 metres long in a curved fashion and there is currently some rubble mix and large concrete blocks with reinforcing material that was used long ago when the parking area was created. The parking area is an important area and one of the few areas where elderly people can park and have a wide view of the beach and sea from the comfort of their vehicles during the winter stormy months. There are also some braai areas that are very popular and used over weekends for by families in a recreational way. This is also one of the few areas along the Hermanus coastline where people can braai in such close proximity to the sea and have safe swimming in the lagoon and thus presents a unique ambiance.

(c) List all the activities assessed during the Basic Assessment process:

Government Notice R544 Activity No(s):	Describe the relevant **Basic Assessment Activity(ies)** in writing as per **Listing Notice 1** (GN No. R544)	Describe the portion of the development as per the project description that relates to the applicable listed activity
11	The construction of (i) canals, (ii) channels, (iii) bridges, (iv) dams, (v) weirs, (vi) bulk storm water outlet structures, (vii) marinas, (viii) jetties exceeding 50 square metres in size, (ix) slipways exceeding 50 square metres in size, (x) buildings exceeding 50 square metres in size, or (xi) infrastructure or structures covering 50 square metres or more where such construction occurs within a watercourse or within 32 metres of a watercourse, measured from the edge of the watercourse, excluding where such construction will occur behind the development setback line.	Construction of the remediation works infra-structure such as improvements to the parking area will be close to some freshwater drainage channels adjacent to the parking area.
14	The construction of structures in the coastal public property where the development footprint is bigger than 50 square metres, excluding (i) the construction of structures within existing ports or harbours that will not increase the development footprint or throughput capacity of the port or harbour; (ii) the construction of a port or harbour, in which case activity 24 of Notice 545 of 2010 applies; (iii) the construction of temporary structures within the beach zone where such structures will be demolished or disassembled after a period not exceeding 6 weeks	Construction of the remediation works infra-structure such as improvements to the parking area will be close to some freshwater drainage channels adjacent to the parking area.
16	Construction or earth moving activities in the sea, an estuary, or within the littoral active zone or a distance of 100 metres inland of the high-water mark of the sea or an estuary, whichever is the greater, in respect of (i) fixed or floating jetties or slipways; (ii) tidal pools; (iii) embankments; (iv) rock revetments or stabilizing structures including stabilizing walls; (v) buildings of 50 square metres or more; or (vi) infrastructure covering 50 square metres or more- but excluding (a) if	Construction of the remediation works infra-structure such as improvements to the parking area will be close to some freshwater drainage channels adjacent to the parking area.

	such construction or earthmoving activities will occur behind a development setback line; or (b) where such construction or earth moving activities will occur within existing ports or harbours and the construction or earth moving activities will not increase the development footprint or throughput capacity of the port or harbour; (c) where such construction or earth moving activities is undertaken for purposes of maintenance of the facilities mentioned in (i)-(vi) above; or (d) where such construction or earth moving activities is related to the construction of a port or harbour, in which case activity 24 of Notice 545 of 2010 applies	
17	The planting of vegetation or placing of any material on dunes and exposed sand surfaces, within the littoral active zone for the purpose of preventing the free movement of sand, erosion or accretion, excluding where the planting of vegetation or placement of material relates to restoration and maintenance of indigenous coastal vegetation or where such planting of vegetation or placing of material will occur behind a development setback line	Possible rehabilitation around the proposed remediation area.
18	The infilling or depositing of any material of more than 5 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 5 cubic metres from (i) a watercourse; (ii) the sea; (iii) the seashore; (iv) the littoral active zone, an estuary or a distance of 100 metres inland of the high-water mark of the sea or an estuary, whichever distance is the greater – but excluding where such infilling, depositing, dredging, excavation, removal or moving: (a) is for maintenance purposes undertaken in accordance with a management plan agreed to by the relevant environmental authority; or (b) occurs behind the development setback line.	Construction of the remediation works infra-structure such as improvements to the parking area will be close to some freshwater drainage channels adjacent to the parking area.
24	The transformation of land bigger than 1000 square metres in size, to residential, retail, commercial, industrial or institutional use, where, at the time of coming into effect of this Schedule such land was zoned open space, conservation or had an equivalent zoning (possibly).	Construction of the remediation works infra-structure such as improvements to the parking area will be close to some freshwater drainage channels adjacent to the parking area.
37	The expansion of facilities or infrastructure for the bulk transportation of water, sewage or storm water where: (a) the facility or infrastructure is expanded by more than 1000 metres in length; or (b) where the throughput capacity of the facility or infrastructure will be increased by 10% or more–excluding where such expansion: (i) relates to transportation of water, sewage or storm water within a road reserve; or (ii) where such expansion will occur within urban areas but further than 32 metres from a watercourse, measured from the edge of the watercourse.	Possibly with the alteration to the drainage systems on and immediately adjacent to the parking area
39	The expansion of (i) canals, (ii) channels, (iii) bridges, (iv) weirs, (v) bulk stormwater outlet structures, (vi) marinas, within a watercourse or within 32 metres of a watercourse, measured from the edge of a watercourse, where such expansion will result in an increased development footprint but excluding where such expansion will occur behind the development setbacIk line	Possibly with the remediation works to regulate the water drainage from the parking area to the estuary.
40	The expansion of (i) jetties by more than 50 square metres; (ii) slipways by more than 50 square metres; or (iii) buildings by more than 50 square metres; (iv) infrastructure by more than 50 square metres within a watercourse or within 32 metres of a watercourse, measured from the edge of a watercourse, but excluding where such expansion will occur behind the development setback line.	Construction of the remediation works infra-structure such as improvements to the parking area will be close to some freshwater drainage channels adjacent to the parking area.
43	The expansion of structures in the coastal public property where the development footprint will be increased by more than 50 square metres, excluding such expansions within existing ports or harbours where there would be no increase in the development or footprint or throughput capacity of the port or harbour	Remediation works of the parking area.
45	The expansion of facilities in the sea, an estuary, or within the littoral active zone or a distance.of 100 metres inland of the high tide mark of the sea or estuary whichever is the greater, for (i) fixed or floating jetties and slipways; (ii) tidal pools; (iii) embankments; (iv) rock revetments or stabilizing structures including stabilizing walls (v) buildings by more than 50 square metres; (vi) infrastructure by more than 50 square metres (vii) facilities associated with the arrival and departure of vessels and the handling of cargo; (viii) piers (ix) inter and sub-tidal structures for the entrapment of sand; (x) breakwater structures; (xi) coastal marinas; (xii) coastal harbours or ports (xiii) structures for draining parts of the sea or estuary; (xiv) tunnels; or (xv) underwater channels where such expansion will result in an increase in the development footprint of	Construction of the remediation works infra-structure such as improvements to the parking area will be close to some freshwater drainage channels adjacent to the parking area.

	such facilities, but excluding where such expansion occurs: (a) behind a development setback line; or (b) within existing ports or harbours where there will be no increase in the development footprint or throughput capacity of the port or harbour	
Government Notice R545 Activity No(s):	Describe the relevant **Scoping and EIA Activity(ies)** in writing as per **Listing Notice 2** (GN No. R545)	Describe the portion of the development as per the project description that relates to the applicable listed activity
Government Notice R546 Activity No(s):	Describe the relevant **Basic Assessment Activity(ies)** in writing as per **Listing Notice 3** (GN No. R546)	Describe the portion of the development as per the project description that relates to the applicable listed activity
4	The construction of a road wider than 4 metres with a reserve less than 13.5 metres in (d) Western Cape (i) in an estuary; (ii) all areas outside urban areas; (iii) in urban areas (aa) areas zoned for use as public open space within urban areas and (bb) areas designated for conservation use in Spatial Development Frameworks adopted by the competent authority, or zoned for a conservation purpose.	Construction of the remediation works infra-structure such as improvements to the parking area will be close to some freshwater drainage channels adjacent to the parking area.
12	The clearance of an area of 300 square metres or more of vegetation where 75% or more of the vegetative cover constitutes indigenous vegetation (a) within any critically endangered or endangered ecosystem listed in terms of section 52 of the NEMBA or prior to the publication of such a list, within an area that has been identified as critically endangered in the National Spatial Biodiversity Assessment 2004; (b) within critical biodiversity areas identified in bioregional plans; (c) within the littoral active zone or 100 metres inland from the high water mark of the sea or and estuary, whichever distance is the greater, excluding where such removal will occur behind the development setback line on erven in urban areas.	Construction of the remediation works infra-structure such as improvements to the parking area will be close to some freshwater drainage channels adjacent to the parking area.
16	The construction of: (i) jetties exceeding 10 square metres in size, (ii) slipways exceeding 10 square metres in size, (iii) buildings exceeding 10 square metres in size, or (iv) infrastructure covering 10 square metres or more where such construction occurs within a watercourse or within 32 metres of a watercourse, measured from the edge of a watercourse, excluding where such construction will occur behind the development setback line **(d) in Western Cape:** (i) in an estuary; (ii) outside urban areas, in (aa) A protected area identified in terms of NEMPAA, excluding conservancies; (bb) National Protected Area Expansion Focus areas, (cc) World Heritage Sites; (dd) Sensitive areas as identified in an environmental management framework as contemplated in chapter 5 of the Act and as adopted by the competent authority; (ee) Sites or areas identified in terms of an International Convention; (ff) Critical biodiversity areas or ecosystem service areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans; (gg) Core areas in biosphere reserves; (hh) Areas within 10 kilometres from national parks or world heritage sites or 5 kilometres from any other protected area identified in terms of NEMPAA or from the core area of a biosphere reserve; (iii) Areas seawards of the development setback line or within 1 kilometre from the high-water mark of the sea if no such development setback line is determined. (iv) Inside urban areas: (aa) Areas zoned for use as public open space; (bb) Areas designated for conservation use in Spatial Development Frameworks adopted by the competent authority or zoned for a conservation purpose; (cc) Areas seawards of the development setback line or within 100 metres of the high water mark where no setback line is determined.	Construction of the remediation works infra-structure such as improvements to the parking area will be close to some freshwater drainage channels adjacent to the parking area.
19	The widening of a road by more than 4 metres or the lengthening of road by more than 1 kilometre metres (d) in Western Cape: (i) in an estuary; (ii) all areas outside urban areas; (iii) in urban areas: (aa) areas zoned for use as public open space, and (bb) areas designated for conservation use in Spatial Development Frameworks adopted by the competent authority, or zoned for a conservation purpose, including residential areas.	Improvement/maintenance to road infrastructure required for the remediation of the parking area..

24	The expansion of: (i) jetties where the jetty will be expanded by10 square metres in size or more, (ii) slipways where the slipway will be expanded by10 square metres in size or more, iii) buildings where the buildings will be expanded by10 square metres in size or more, or (iv) infrastructure where the infrastructure will be expanded by10 square metres in size or more where such construction occurs within a watercourse or within 32 metres of a watercourse, measured from the edge of a watercourse, excluding where such construction will occur behind the development setback line (d) In Western Cape: (i) in an estuary; (ii) outside urban areas, in: (aa) a protected area identified in terms of NEMPAA. Excluding conservancies; (bb) National Protected Area Expansion Strategy Focus areas; (cc) sensitive areas as identified in an environmental management framework as contemplated in chapter 5 of the Act and as adopted by the competent authority; (dd) sites or areas identified in terms of an international Convention; (ee) critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans; (ff) core areas in biosphere reserves; (gg) areas within 10 kilometres from national parks or world heritage sires or 5 kilometres from any othe protected area identified in terms of NEMPAA or from the core area of a biosphere reserve; (hh) areas seawards of the development setback line or within 1 kilometre from the high-water mark of the sea if no such development setback line is determined. (iii) inside urban areas: (aa) areas zoned for use as public open space; (bb) areas designated for conservation use in Spatial Development Frameworks adopted by the competent authority or zoned for a conservation purpose.	Construction of the remediation works infra-structure such as improvements to the parking area will be close to some freshwater drainage channels adjacent to the parking area.

If the application is also for activities as per Listing Notice 2 and permission was granted to subject the application to Basic Assessment, also indicate the applicable Listing Notice 2 activities:

GN No. R. 545 Activity No(s):	If permission was granted in terms of Regulation 20, describe the relevant **Scoping and EIA Activity(ies)** in writing as per **Listing Notice 2** (GN No. R. 545)	Describe the portion of the development as per the project description that relates to the applicable listed activity.

Waste management activities in terms of the NEM: WA (Government Gazette No. 32368):

GN No. 718 - Category A Activity No(s):	Describe the relevant Category A waste management activity in writing.

Please note: If any waste management activities are applicable, the **Listed Waste Management Activities Additional Information Annexure** must be completed and attached to this Basic Assessment Report as **Appendix I.**

If the application is also for waste management activities as per Category B and permission was granted to subject the application to Basic Assessment, also indicate the applicable Category B activities:

GN No. 718 – Category B Activity No(s):	Describe the relevant Category B waste management activity in writing.

Atmospheric emission activities in terms of the NEM: AQA (Government Gazette No. 33064):

GN No. 248 Activity No(s):	Describe the relevant atmospheric emission activity in writing.

(d) Please provide details of all components of the proposed project and attach diagrams (e.g. architectural drawings or perspectives, engineering drawings, process flow charts etc.).

Buildings	YES	**NOX**
Provide brief description:		
Infrastructure (e.g. roads, power and water supply/ storage)	YES	**NOX**
Provide brief description:		

Processing activities (e.g. manufacturing, storage, distribution)	YES	**NOX**
Provide brief description:		
Storage facilities for raw materials and products (e.g. volume and substances to be stored)		
Provide brief description	YES	**NOX**
Storage and treatment facilities for solid waste and effluent generated by the project	YES	**NOX**
Provide brief description		

Other activities (e.g. water abstraction activities, crop planting activities)	**YESX?**	NO
Provide brief description		
The sea frontage of the parking area that washed away needs to be rehabilitated by means of reshaping of the bank and stabilisation with either rock, cement or preferably large sand bags weighing ~4 tons each that are stacked as a sea wall.		

2. PHYSICAL SIZE OF THE ACTIVITY

	Size of the property:
(a) Indicate the size of the property (cadastral unit) on which the activity is to be undertaken. Whole parking area is ~2200m²	~2200m²

	Size of the facility:
(b) Indicate the size of the facility (development area) on which the activity is to be undertaken.	~2200m²

	Size of the activity:
(c) Indicate the physical size (footprint) of the activity together with its associated infrastructure:	~3950m²
(d) Indicate the physical size (footprint) of the activity:	~1950m²
(e) Indicate the physical size (footprint) of the associated infrastructure:	~2000m²

and, for linear activities:

	Length of the activity:
(f) Indicate the length of the activity:	~150M

3. SITE ACCESS

(a) Is there an existing access road?	**YESX**	NO
(b) If no, what is the distance over which a new access road will be built?		M

(c) Describe the type of access road planned:

There is an existing access road to the parking area as well as down to the beach. Access to the site of the sand source will be along the beach

Please Note: indicate the position of the proposed access road on the site plan.

4. DESCRIPTION OF THE PROPERTY ON WHICH THE ACTIVITY IS TO BE UNDERTAKEN AND THE LOCATION OF THE ACTIVITY ON THE PROPERTY

(a) Provide a description of the property on which the activity is to be undertaken and the location of the activity on the property.

All municipal land in the Voëlklip area of Hermanus is designated Erf 4771. The existing parking area has been there since the mid eighties and has been upgraded on a number of occasions to include an ablution block and some braai areas. There also used to be a parking area lower down to the east of the existing parking area and an access for motor vehicles to a large recreational area between the Kleinrivier lagoon and the beach area, This area was compacted by vehicular traffic in such a way that very easy access was possible with ordinary motor vehicles. This used to be a very popular tourist area where

visitors could get right next to the water with their families and recreation things such as tubes, windsurfers, small rubber craft with oars etc, and was a very safe place where small children could play in the water. Cape Nature closed this area to traffic in the early nineties and this tourism access and usage pattern was completely lost. Access is now restricted to the Grotto Bay parking area and this is still one of the few remaining areas where eg. the elderly and infirm can have a close-up view over the sea and beach area, especially during the winter season and whale watching period. It is also virtually the only remaining braai area where people can braai and relax close to the sea and is very well used, especially by the historically disadvantaged population sector.

(b) Please provide a location map (see below) as **Appendix A** to this report which shows the location of the property and the location of the activity on the property; as well as a site map (see below) as **Appendix B** to this report; and if applicable all alternative properties and locations.

Locality map:	The scale of the locality map must be at least 1:50 000. For linear activities of more than 25 kilometres, a smaller scale e.g. 1:250 000 can be used. The scale must be indicated on the map. The map must indicate the following: • an accurate indication of the project site position as well as the positions of the alternative sites, if any; • road names or numbers of all the major roads as well as the roads that provide access to the site(s) • a north arrow; • a legend; • the prevailing wind direction (during **November to April and during May to October**); and • GPS co-ordinates (Indicate the position of the activity using the latitude and longitude of the centre point of the site for each alternative site. The co-ordinates should be in degrees and decimal minutes. The minutes should have at least three decimals to ensure adequate accuracy. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection).

Site Plan:	Detailed site plan(s) must be prepared for each alternative site or alternative activity. The site plan must contain or conform to the following: • The detailed site plan must be at a scale preferably at a scale of 1:500 or at an appropriate scale. The scale must be indicated on the plan. • The property boundaries and numbers of all the properties within 50m of the site must be indicated on the site plan. • The current land use (not zoning) as well as the land use zoning of each of the adjoining properties must be indicated on the site plan. • The position of each element of the application as well as any other structures on the site must be indicated on the site plan. • Services, including electricity supply cables (indicate above or underground), water supply pipelines, boreholes, sewage pipelines, storm water infrastructure and access roads that will form part of the development must be indicated on the site plan. • Servitudes indicating the purpose of the servitude must be indicated on the site plan. • Sensitive environmental elements within 100m of the site must be included on the site plan, including (but not limited to): ○ Rivers. ○ Flood lines (*i.e.* 1:10, 1:50, year and 32 meter set back line from the banks of a river/stream). ○ Ridges. ○ Cultural and historical features. ○ Areas with indigenous vegetation (even if it is degraded or infested with alien species). • Whenever the slope of the site exceeds 1:10, then a contour map of the site must be submitted.

(c) For a linear activity, please also provide a description of the route.

Indicate the position of the activity using the latitude and longitude of the centre point of the site. The co-ordinates must be in degrees, minutes and seconds. The minutes should be given to at least three decimals to ensure adequate accuracy. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection.	**Latitude (S):**			**Longitude (E):**		
	34°	24'	57.0"	19°	17'	37.30"

(d) or:

For linear activities:	**Latitude (S):**			**Longitude (E):**		
• Starting point of the activity	°	'	"	°	'	"
• Middle point of the activity	°	'	"	°	'	"
• End point of the activity	°	'	"	°	'	"

Please Note: For linear activities that are longer than 500m, please provide and addendum with co-ordinates taken every 100 meters along the route.

5. SITE PHOTOGRAPHS

Colour photographs of the site and its surroundings (taken of the site and from the site) with a description of each photograph. The vantage points from which the photographs were taken must be indicated on the site plan, or locality plan as applicable. If available, please also provide a recent aerial photograph. Photographs must be attached as **Appendix C** to this report. It should be supplemented with additional photographs of relevant features on the site. Date of photographs must be included. Please note that the above requirements must be duplicated for all alternative sites.

SECTION B: DESCRIPTION OF RECEIVING ENVIRONMENT

Site/Area Description

For linear activities (pipelines, etc.) as well as activities that cover very large sites, it may be necessary to complete copies of this section for each part of the site that has a significantly different environment. In such cases please complete copies of Section B and indicate the area which is covered by each copy No. on the Site Plan.

1. GRADIENT OF THE SITE

Indicate the general gradient of the sites (highlight the appropriate box).

Flat	Flatter than 1:10	1:10 – 1:4	**Steeper than 1:4**

The parking area is flat and the bank slope to the beach is steeper than 1:4

2. LOCATION IN LANDSCAPE

(a) Indicate the landform(s) that best describes the site (highlight the appropriate box(es).

Ridgeline	Plateau	Side slope of hill/mountain	Closed valley	Open valley	**Plain**	Undulating plain/low hills	Dune	**Sea-front**

(b) Please provide a description of the location in the landscape.

The site is located on an area that was infilled in the foredunes to create an elevated parking area that is serviced by a tar road immediately behind the foredune from the Grotto beach area to exit at the eastern end of the Voëlklip residential area. To the immediate north of the parking area on the other side of the tar road and the ablution block is still part of the established dune system that is covered in natural vegetation and old milkwood trees. It is also protected from human access by means of a multi-strand barb-wire fence to allow the regeneration of milkwood seedlings by preventing them from beign trampled underfoot by human activity in the protected area. Immediately adjacent to the Grotto parking area to the east is a wetland section that drains into the Kleinriviersvlei when the latter is at full supply, otherwise the wetland is dry during the summer dry season.

3. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

(a) Is the site(s) located on or near any of the following (highlight the appropriate boxes)?

Shallow water table (less than 1.5m deep)	YES	**NOX**	UNSURE
Seasonally wet soils (often close to water bodies)	YES	**NOX**	UNSURE
Unstable rocky slopes or steep slopes with loose soil	YES	**NOX**	UNSURE
Dispersive soils (soils that dissolve in water)	YES	**NOX**	UNSURE
Soils with high clay content	YES	**NOX**	UNSURE
Any other unstable soil or geological feature	YES	**NOX**	UNSURE
An area sensitive to erosion	YES	**NOX**	UNSURE
An area adjacent to or above an aquifer.	YES	**NOX**	UNSURE
An area within 100m of the source of surface water	YES	**NOX**	UNSURE

(b) If any of the answers to the above are "YES" or "unsure", specialist input may be requested by the Department. (Information in respect of the above will often be available at the planning sections of local authorities. Where it exists, the 1:50 000 scale Regional Geotechnical Maps prepared by Geological Survey may also be used).

(c) Please indicate the type of geological formation underlying the site.

Granite	Shale	**Sandstone**	Quartzite	Dolomite	Dolorite	Other (describe)
Please provide a description.						
The underlying geological formation consists of Peninsula Formation Sandstone of the Table Mountain Group						

4. SURFACE WATER

(a) Indicate the surface water present on and or adjacent to the site and alternative sites (highlight the appropriate boxes)?

Perennial River	YES	**NOX**	UNSURE
Non-Perennial River	YES	**NOX**	UNSURE
Permanent Wetland	YES	**NOX**	UNSURE
Seasonal Wetland	**YESX**	NO	UNSURE
Artificial Wetland	YES	**NOX**	UNSURE
Estuarine / Lagoonal wetland	**YESX**	NO	UNSURE

(b) Please provide a description.

There is a drainage line from the higher elevations of Voëlklip that ends in a low lying depression to the east of the parking area where the stormwater and runoff from the hardened catchment congregates. This wetland area is relatively small and is seasonal. There is either a small surface drainage to the Kleinriviersvlei immediately to the south during the wet winter months or subsurface drainage to the underlying water of the vlei during the dry summer months.

5. BIODIVERSITY

Please note: The Department may request specialist input/studies depending on the nature of the biodiversity occurring on the site and potential impact(s) of the proposed activity/ies. To assist with the identification of the biodiversity occurring on site and the ecosystem status consult http://bgis.sanbi.org or BGIShelp@sanbi.org. Information is also available on compact disc (cd) from the Biodiversity-GIS Unit, Ph (021) 799 8698. This information may be updated from time to time and it is the applicant/ EAP's responsibility to ensure that the latest version is used. A map of the relevant biodiversity information (including an indication of the habitat conditions as per (b) below) and must be provided as an overlay map to the property/site plan as **Appendix D** to this report.

(a) Highlight the applicable biodiversity planning categories of all areas on site and indicate the reason(s) provided in the biodiversity plan for the selection of the specific area as part of the specific category).

Systematic Biodiversity Planning Category				**If CBA or ESA, indicate the reason(s) for its selection in biodiversity plan**
Critical Biodiversity Area (CBA)	Ecological Support Area (ESA)	Other Natural Area (ONA)	**No Natural Area Remaining (NNR)**	No CBA or ESA exists for the parking area as there is no natural vegetation remaining on the site.

(b) Highlight and describe the habitat condition on site.

Habitat Condition	**Percentage of habitat condition class (adding up to 100%)**	**Description and additional Comments and Observations (including additional insight into condition, e.g. poor land management practises, presence of quarries, grazing/harvesting regimes etc).**
Natural	0%	
Near Natural (includes areas with low to moderate level of alien invasive plants)	0%	
Degraded (includes areas heavily invaded by alien plants)	0%	
Transformed (includes cultivation, dams, urban, plantation,	100%	The area has been completely transformed by past infilling, and creation of a hardened gravel surface in the fore dune to allow vehicular access and parking and recreational area with braai area and ablution block..

roads, etc)		

(c) Complete the table to indicate:
(i) the type of vegetation, including its ecosystem status, present on the site; and
(ii) whether an aquatic ecosystem is present on site.

Terrestrial Ecosystems		Aquatic Ecosystems						
Ecosystem threat status as per the National Environmental Management: Biodiversity Act (Act No. 10 of 2004)	Critical	Wetland (including rivers, depressions, channelled and unchanneled wetlands, flats, seeps pans, and artificial wetlands)			Estuary		Coastline	
	Endangered							
	Vulnerable							
	Least Threatened							
		YESX	NO	UNSURE	**YESX**	NO	**YESX**	NO

(d) Please provide a description of the vegetation type and/or aquatic ecosystem present on site, including any important biodiversity features/information identified on site (e.g. threatened species and special habitats)

There is no vegetation left on site except for the odd exotic tree that provides some shade at the braai area. There are no wetlands, rivers, depressions on site. There is a drainage line from the higher elevations of Voëlklip that ends in a low lying depression to the east of the parking area where the stormwater and runoff from the hardened catchment congregates. This wetland area is relatively small and is seasonal. There is either a small surface drainage to the Kleinriviersvlei immediately to the south during the wet winter months or subsurface drainage to the underlying water of the vlei during the dry summer months. The mouth of the Kleinriviersvlei has broken open to the immediate west of the parking lot for the first time in more than 30 years. This came about due to the fact that mainly the vehicular access to the "plaat" area between the vlei and the sea was stopped circa the mid nineties, as well as the fact that the artificial opening of the mouth was not made during the last two years, coupled with severe adverse sea conditions during the winter of 2012 and subsequent further scour erosion of the fore dune during the winter of 2013. At present the scour has back-eroded the fore dune for a distance of ~20metres to within 6-8 metres of the coastal road.

6. LAND USE OF THE SITE

Please note: The Department may request specialist input/studies depending on the nature of the land use character of the area and potential impact(s) of the proposed activity/ies.

Untransformed area	Low density residential	Medium density residential	High density residential	Informal residential
Retail	Commercial & warehousing	Light industrial	Medium industrial	Heavy industrial
Power station	Office/consulting room	Military or police base/station/compound	Casino/entertainment complex	Tourism & Hospitality facility
Open cast mine	Underground mine	Spoil heap or slimes dam	Quarry, sand or borrow pit	Dam or reservoir
Hospital/medical center	School	Tertiary education facility	Church	Old age home
Sewage treatment plant	Train station or shunting yard	Railway line	Major road (4 lanes or more)	Airport
Harbour	Sport facilities	Golf course	Polo fields	Filling station
Landfill or waste treatment site	Plantation	Agriculture	River, stream or wetland	Nature conservation area
Mountain, koppie or ridge	Museum	Historical building	Graveyard	Archeological site
Other land uses (describe):	**Filled in and compacted area to create a parking area and some braai facilities.**			

(a) Please provide a description.

The site is located on an area that was infilled in the fore dunes to create an elevated parking area that is serviced by a tar road immediately behind the fore dune from the Grotto beach area to exit at the eastern end of the Voëlklip residential area. To the immediate north of the parking area on the other side of the tar road and the ablution block is still part of the established dune system that is covered in natural vegetation and old milkwood trees. It is also protected from human access by means of a multi-strand barb-wire fence to allow the regeneration of milkwood seedlings by preventing them from beign trampled underfoot by human activity in the protected area. Immediately adjacent to the Grotto parking area to the east is a wetland section that drains into the Kleinriviersvlei when the latter is at full supply, otherwise the wetland is dry during the summer dry season. There is no vegetation left on site except for the odd exotic tree that provides some shade at the braai area. There are no wetlands, rivers, depressions on site. There is a drainage line from the higher elevations of Voëlklip that ends in a low lying depression to the east of the parking area where the stormwater and runoff from the hardened catchment congregates. This wetland area is relatively small and is seasonal. There is either a small surface drainage to the Kleinriviersvlei immediately to the south during the wet winter months or subsurface drainage to the underlying water of the vlei during the dry summer months.

7. LAND USE CHARACTER OF SURROUNDING AREA

(a) Highlight the current land uses and/or prominent features that occur within +/- 500m radius of the site and neighbouring properties if these are located beyond 500m of the site.

Please note: The Department may request specialist input/studies depending on the nature of the land use character of the area and potential impact(s) of the proposed activity/ies.

Untransformed area	Low density residential	**Medium density residential**	High density residential	Informal residential
Retail	Commercial & warehousing	Light industrial	Medium industrial	Heavy industrial
Power station	**Office/consulting room**	Military or police base/station/compound	Casino/entertainment complex	**Tourism & Hospitality facility**
Open cast mine	Underground mine	Spoil heap or slimes dam	Quarry, sand or borrow pit	Dam or reservoir
Hospital/medical center	School	Tertiary education facility	Church	Old age home
Sewage treatment plant	Train station or shunting yard	Railway line	Major road (4 lanes or more)	Airport
Harbour	Sport facilities	Golf course	Polo fields	Filling station
Landfill or waste treatment site	Plantation	Agriculture	**River, stream or wetland**	**Nature conservation area**
Mountain, koppie or ridge	Museum	Historical building	Graveyard	Archeological site
Other land uses (describe):	**Beachfront and estuary**			

(b) Please provide a description, including the distance and direction to the nearest residential area and industrial area.

The nearest residential area is located immediately to the north ~250 metres of the parking area but is not visible from the existing picnic area. The houses are occupied by mainly retired residents and expensive and exclusive holiday residences. The nearest industrial area is ~8 km to the west as the crow flies. The area immediately surrounding the site to the north consists of a dense milkwood forest in good condition and this area is at present in the process of being incorporated into the Fernkloof Nature Reserve by the Overstrand Municipality. The area to the east consists of the Kleinriviersvlei and to the south is the extension of Grotto Beach.

8. SOCIO-ECONOMIC ASPECTS

Describe the existing social and economic characteristics of the community in order to provide baseline information.

The communities surrounding the site consist of higher income group retired persons that live there permanently or people that have holiday houses in the area. The houses consists of older large architecturally designed houses as well as very large modern houses that have been constructed after the old house has been knocked down

9. HISTORICAL AND CULTURAL ASPECTS

(a) Please be advised that if section 38 of the National Heritage Resources Act, 1999 (Act No. 25 of 1999), is applicable to your proposed development, then you are requested to furnish this Department with written comment from Heritage Western Cape as part of your public participation process. Section 38 of the Act states as follows: *"38. (1) Subject to the provisions of subsections (7), (8) and (9), any person who intends to undertake a development categorised as-*

(a) the construction of a road, wall, power line, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length;

(b) the construction of a bridge or similar structure exceeding 50m in length;

I any development or other activity which will change the character of a site-

(i) exceeding 5 000 m2 in extent; or

(ii) involving three or more existing erven or subdivisions thereof; or

(iii) involving three or more erven or divisions thereof which have been consolidated within the past five years; or

(iv) the costs of which will exceed a sum set in terms of regulations by SAHRA or a provincial heritage resources authority;

(d) the re-zoning of a site exceeding 10 000 m2 in extent; or

(e) any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority,

must at the very earliest stages of initiating such a development, notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development."

(b) The impact on any national estate referred to in section 3(2), excluding the national estate contemplated in section 3(2)(i)(vi) and (vii), of the National Heritage Resources Act, 1999 (Act No. 25 of 1999), must also be investigated, assessed and evaluated. Section 3(2) states as follows: *"3(2) Without limiting the generality of subsection (1), the national estate may include—*

(a) places, buildings, structures and equipment of cultural signiticance;
(b) places to which oral traditions are attached or which are associated with living heritage;
I historical settlements and townscapes;
(d) landscapes and natural features of cultural significance;
(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 individuals designated by the Minister by notice in the Gazette;
(v) historical graves and cemeteries; and
(vi) other human remains which are not covered in terms of the Human Tissue Act, 1983 (Act No. 65 of 1983);
(h) sites of significance relating to the history of slavery in South Africa;
(i) 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) objects to which oral traditions are attached or which are associated with living heritage;
(iii) ethnographic art and objects;
(iv) military objects;
(v) objects of decorative or fine art;
(vi) objects of scientific or technological interest; and
(vii) books, records, documents, photographic positives and negatives, graphic, film or video material or sound recordings, excluding those that are public records as defined in section 1(xiv) of the National Archives of South Africa Act, 1996 (Act No. 43 of 1996)."

Is section 38 of the National Heritage Resources Act, 1999, applicable to the development?		YES	**NOX**
		UNCERTAIN	
If YES, explain:			
Will the development impact on any national estate referred to in section 3(2) of the National Heritage Resources Act, 1999?		YES	**NOX**
		UNCERTAIN	
If YES, explain:			
Will any building or structure older than 60 years be affected in any way?	YES	**NOX**	UNCERTAIN
If YES, explain:			

Please Note: If uncertain, the Department may request that specialist input be provided.

10. APPLICABLE LEGISLATION, POLICIES AND/OR GUIDELINES

(a) Please list all legislation, policies and/or guidelines that have been considered in the preparation of this Basic Assessment Report.

LEGISLATION	ADMINISTERING AUTHORITY	TYPE Permit/ license/ authorisation/comment / relevant consideration (e.g. rezoning or consent use, building plan approval)	DATE (if already obtained):
Overstrand Municipality SDF	Overstrand Municipality		
National Env Management Act	DEA&DP		
SA Heritage Resources Act	Heritage Western Cape		
National Water Act	DWA		

POLICY/ GUIDELINES	ADMINISTERING AUTHORITY
Guideline on Alternatives	DEA&DP
Guideline for Environmental Management Plans	DEA&DP
Guideline on Need and Desirability	DEA&DP
Waste Minimisation Guidelines for Environmental Impact Assessment Review	DEA&DP
Guideline on Public Participation	DEA&DP
Guideline on Exemption Applications	DEA&DP
Provincial Urban Edge Guideline	DEA&DP
Western Cape Provincial Spatial Development Framework	DEA&DP

(b) Please describe how the legislation, policies and/or guidelines were taken into account in the preparation of this Basic Assessment Report.

LEGISLATION / POLICY / GUIDELINE	DESCRIBE HOW THE LEGISLATION / POLICY / GUIDELINE WERE TAKEN INTO ACCOUNT (e.g. describe the extent to which it was adhered to, or deviated from, etc).
Overstrand Municipality SDF	The SDF does not address this activity specifically, but the area is zoned for public open space (adhered to fully).
National Env Management Act	Relevant regulations govern content and process of EIA (adhered to fully)
Guideline on Alternatives	Used to determine reasonable and feasible alternatives and also the mandatory assessment of the no – go alternative (adhered to fully)
Guideline for Environmental Management Plans	Definition of management actions to avoid , eliminating, offsetting, or reducing adverse environmental impacts during construction and operational phases and enhancing positive impacts (adhered to in high extent)
Guideline on Need and Desirability	Used to answer is this the right time and is it the right place for locating the type of land-use/activity being proposed? In other words, is this development considered wise use of land – i.e. the question of whether the development could be considered as sustainable use of land, keeping in mind the triple bottom line (fully adhered to)
Waste Minimisation Guidelines for Environmental Impact Assessment Review	Used to determine the limitation of generation of waste and the re-use thereof to limit negative environmental impacts and to maximize the re-use of waste resources (fully adhered to)
Guideline on Public Participation	Guideline used to determine extent of public participation required and based on three variables of : ○ the scale of anticipated impacts of the proposed project; ○ the sensitivity and the degree of controversy of the project; and ○ the characteristics of the potentially affected parties. Adhered to fully.
Guideline on Exemption Applications	Guideline used to determine requirements for exemption from Regulation 10(2)(d), if applicable and based on rationale of guideline to integrate the public participation processes required for exemption applications with the public participation requirements as part of the Basic Assessment process (adhered to fully).

Please note: Copies of any permit(s) or licences received from any other organ of state must be attached this report as **Appendix E**.

SECTION C: PUBLIC PARTICIPATION

The public participation process must fulfil the requirements outlined in NEMA, the EIA Regulations, and if applicable the NEM: WA and/or the NEM: AQA. This Department's *Guideline on Public Participation* (August 2010) and *Guideline on Exemption Applications* (August 2010), both of which are available on the Department's website (**http://www.capegateway.gov.za/eadp**), must also be taken into account.

Please highlight the appropriate box to indicate whether the specific requirement was undertaken or whether there was a deviation that was agreed to by the Department.

1. Were all potential interested and affected parties notified of the application by –		
(a) fixing a notice board at a place conspicuous to the public at the boundary or on the fence of -		
(i) the site where the activity to which the application relates is to be undertaken; and	**YESX**	DEVIATED
(ii) any alternative site mentioned in the application;	**YESX**	DEVIATED
(b) giving written notice to –		
(i) the owner or person in control of that land if the applicant is not the owner or person in control of the land;	**YESX**	N/A

(ii) the occupiers of the site where the activity is to be undertaken and to any alternative site where the activity is to be undertaken;	**YESX**	DEVIATED	
(iii) owners and occupiers of land adjacent to the site where the activity is to be undertaken and to any alternative site where the activity is to be undertaken;	**YESX**	DEVIATED	
(iv) the municipal councillor of the ward in which the site and alternative site is situated and any organisation of ratepayers that represent the community in the area;	**YESX**	DEVIATED	
(v) the municipality which has jurisdiction in the area;	**YESX**	DEVIATED	
(vi) any organ of state having jurisdiction in respect of any aspect of the activity; and	**YESX**	DEVIATED	
(vii) any other party as required by the competent authority;	**YESX**	DEVIATED	
I placing an advertisement in -			
(i) one* local newspaper; and	**YESX**	DEVIATED	
(ii) any official *Gazette* that is published specifically for the purpose of providing public notice of applications or other submissions made in terms of these Regulations;	YE S	DEVIATED	**N/A**
(d) placing an advertisement in at least one* provincial newspaper or national newspaper, if the activity has or may have an impact that extends beyond the boundaries of the metropolitan or local municipality in which it is or will be undertaken.	YE S	DEVIATED	**N/A**

* **Please note:** In terms of the NEM: WA and NEM: AQA a notice must be placed in at least two newspapers circulating in the area in which the activity applied for is to be carried out.

2. Provide a list of all the state departments that were consulted:
DEA&DP
Dept of Water Affairs
Cape Nature

3. Please provide an overall summary of the Public Participation Process that was followed. (The detailed outcomes of this process must be included in a comments and response report to be attached to the final Basic Assessment Report (see note below) as **Appendix F**).

The public participation process followed in the abovementioned instance was designed from the onset driven by the DEA&DP NEMA EIA Guideline on Public Participation and was initiated by the following series of events, which occurred more or less simultaneously:

- social profiling as described by O'Connor (1977) was employed to determine the key characteristics of potential Interested and Affected Parties as well as the organs of state that have an interest in the proposed rehabilitation of the Grotto parking area as mentioned elsewhere in the report, as starting point for identifying potential stakeholders;
- brainstorming sessions were held with some authorities to further identify key stakeholders who may have an interest in or be affected by the proposal;
- the proposed rehabilitation was advertised in the "Hermanus Times " of 3 October 2013 as well as the "Gansbaai Courant" of 3 October 2013, giving details of how to engage in the process, as well as the deadline for comment, etc;
- at the same time an on-site advert was fixed at a conspicuous place of the site mentioned in the application;
- a Background Information Document (BID) was compiled that contained enough detail that could be made available to potential I&APs, either by direct posting or upon request in response to advertisements, etc., to allow them access to information to make informed inputs to the environmental impact assessment process;
- the site advert, the advertisement in the newspaper and BID gave details of the application, which is subjected to public participation as well as stated:
  - that the application had been submitted to the competent authority in terms of the NEMA Regulations;
  - that Basic Assessment procedures were being applied to the application for environmental authorisation;
  - stating the nature and location of the activity to which the application relates;
  - where further information on the application and proposed activity could be obtained;
  - and the manner in which, as well as the person, to whom representations in respect of the application could be made, giving contact details;
  - informing potential Interested and Affected Parties about the process requirements for formal registration as I&AP who will be further involved in the assessment process;
  - as well as the deadline for registration and comment.
- the documents were sent to the municipal councillor of the ward in which the site is situated;
- the documents were sent to the municipality which has jurisdiction in the area;
- the documents were sent to organs of state having jurisdiction in respect of any aspect of the activity;
- municipalities and other organs of state were notified and given an opportunity to comment in writing;
- a register of I&APs was opened and all correspondence received was responded to;
- a draft Basic Assessment Report was made available to registered I&APs in the Hermanus Library and on the Overstrand municipal website, as well as to organs of state which has jurisdiction in respect of any aspect of the activity, after it was made available to DEA&DP;
- a final copy of the BAR will be made available to all registered I&APs.

Please note:

Should any of the responses be "No" and no deviation or exemption from that requirement was requested and agreed to /granted by the Department, the Basic Assessment Report will be rejected.

A list of all the potential interested and affected parties, including the organs of State, notified and a list of all the register of interested and affected parties, must be submitted with the final Basic Assessment Report. The list of registered interested and affected parties must be opened, maintained and made available to any person requesting access to the register in writing.

The draft Basic Assessment Report must be submitted to the Department before it is made available to interested and affected parties, including the relevant organs of State and State departments which have jurisdiction with regard to any aspect of the activity, for a 40-day commenting period. With regard to State departments, the 40-day period commences the day after the date on which the Department as the competent/licensing authority requests such State department in writing to submit comment. The applicant/EAP is therefore required to inform this Department in writing when the draft Basic Assessment Report will be made available to the relevant State departments for comment. Upon receipt of the Draft Basic Assessment Report and this confirmation, this Department will in accordance with Section 24O(2) and (3) of the NEMA request the relevant State departments to comment on the draft report within 40 days.

All comments of interested and affected parties on the draft Basic Assessment Report must be recorded, responded to and included in the Comments and Responses Report included as **Appendix F** to the final Basic Assessment Report. If necessary, any amendments in response to comments received must be effected in the Basic Assessment Report itself. The Comments and Responses Report must also include a description of the public participation process followed.

The final Basic Assessment Report must be made available to registered interested and affected parties for comment before submitting it to the Department for consideration. Unless otherwise indicated by the Department, a final Basic Assessment Report must be made available to the registered interested and affected parties for comment for a minimum of 21-days. Comments on the final Basic Assessment Report does not have to be responded to, but the comments must be attached to the final Basic Assessment Report.

The minutes of any meetings held by the EAP with interested and affected parties and other role players which record the views of the participants must also be submitted as part of the public participation information to be attached to the final Basic Assessment Report as **Appendix F.**

Proof of all the notices given as indicated, as well as of notice to the interested and affected parties of the availability of the draft Basic Assessment Report and final Basic Assessment Report must be submitted as part of the public participation information to be attached to the final Basic Assessment Report as **Appendix F.**

SECTION D: NEED AND DESIRABILITY

Please Note: Before completing this section, first consult this Department's *Guideline of Need and Desirability* (August 2010) available on the department's website (**http://www.capegateway.gov.za/eadp**).

1. Is the activity permitted in terms of the property's existing land use rights?	**YESX**	NO	Please explain
The land portion is zoned public open space.			
2. Will the activity be in line with the following?			
(a) Provincial Spatial Development Framework (PSDF)	**YESX**	NO	Please explain
The PSDF does not address this activity at this level			
(b) Urban edge / Edge of Built environment for the area	**YESX**	NO	Please explain
The land portion is inside the urban edge			
(c) Integrated Development Plan and Spatial Development Framework of the Local Municipality (e.g. would the approval of this application compromise the integrity of the existing approved and credible municipal IDP and SDF?).	**YESX**	NO	Please explain
The approval of this application will not compromise the integrity of the existing IDP and SDF			
(d) Approved Structure Plan of the Municipality	**YESX**	NO	Please explain
The Structure Plan shows the public open space			
(e) An Environmental Management Framework (EMF) adopted by the Department (e.g. Would the approval of this application compromise the integrity of the existing environmental management priorities for the area and if so, can it be justified in terms of sustainability considerations?)	YES	NO	Please explain
n/a			
(f) Any other Plans (e.g. Guide Plan)	YES	NO	Please explain
n/a			
3. Is the land use (associated with the activity being applied for) considered within the timeframe intended by the existing approved Spatial Development Framework (SDF) agreed to by the relevant environmental authority (i.e. is the proposed development in line with the projects and programmes identified as priorities within the credible IDP)?	**YESX**	NO	Please explain
This is an existing parking area approved in the SDF			
4. Should development, or if applicable, expansion of the town/area concerned in terms of this land use (associated with the activity being applied for) occur here at this point in time?	**YESX**	NO	Please explain
This is an essential rehabilitation of the existing parking area that is an important view point over the Kleinriviersvlei. The mouth of the estuary also needs to be moved back in an easterly direction where its opening used to be managed. If left in its present position the coastal road could be lost in the next 2-3 years, depending on the rainfall pattern and sea conditions.			
5. Does the community/area need the activity and the associated land use concerned (is it a societal priority)? (This refers to the strategic as well as local level (e.g. development is a national priority, but within a specific local context it could be inappropriate.)	**YESX**	NO	Please explain
The rehabilitation will prevent further erosion of the parking area and the foredune next to the coastal road by the outflow of the Kleinriviersvlei and re-instate the parking area use.			
6. Are the necessary services with adequate capacity currently available (at the time of application), or must additional capacity be created to cater for the development? (Confirmation by the relevant Municipality in this regard must be attached to the final Basic Assessment Report as **Appendix E**.)	**YESX**	NO	Please explain
The services are all existing in the area and are supplied by the municipality.			
7. Is this development provided for in the infrastructure planning of the municipality, and if not what will the implication be on the infrastructure planning of the municipality (priority and placement of services and opportunity costs)? (Comment by the relevant Municipality in this regard must be attached to the final Basic Assessment Report as **Appendix E**.)	YES	NO	Please explain
If the parking area is not rehabilitated and the estuary mouth moved eastwards to the old managed position some 650 metres east, the scour of the estuarine outflow and the prevailing rock formations at the parking area there is a very high possibility of the coastal road being lost, thus the municipal infrastructure will be lost.			
8. Is this project part of a national programme to address an issue of national concern or importance?	YES	**NOX**	Please explain

9. Do location factors favour this land use (associated with the activity applied for) at this place? (This relates to the contextualisation of the proposed land use on this site within its broader context.)	**YESX**	NO	Please explain
The existing location of the parking area dictates the area of the rehabilitation.			
10. How will the activity or the land use associated with the activity applied for, impact on sensitive natural and cultural areas (built and rural/natural environment)?	YES	NO	Please explain
If the parking area is not rehabilitated and the estuary mouth area not moved a good distance eastwards, a large section of the coastal road between Grotto Beach and past the parking area to link with Voëlklip east will most probably be lost.			
11. How will the development impact on people's health and wellbeing (e.g. in terms of noise, odours, visual character and sense of place, etc)?	YES	NO	Please explain
It will re-instate the front end of the parking area and prevent further erosion by the estuary outflow			
12. Will the proposed activity or the land use associated with the activity applied for, result in unacceptable opportunity costs?	YES	**NOX**	Please explain
13. What will the cumulative impacts (positive and negative) of the proposed land use associated with the activity applied for, be?	YES	NO	Please explain
The cumulative positive impact will be the rehabilitation of part of the parking area and enhance the public use opportunities, as well as protect the coastal road from further erosion.			
14. Is the development the best practicable environmental option for this land/site?	**YESX**	NO	Please explain
Rehabilitation of the existing parking area.			
15. What will the benefits be to society in general and to the local communities?			Please explain
The cumulative positive impact will be the rehabilitation of part of the parking area and enhance the public use opportunities, as well as protect the coastal road from further erosion.			
16. Any other need and desirability considerations related to the proposed activity?			Please explain
Yes, the estuarine mouth needs to be re-instated ~650 metres to the east where it used to be artificially managed, in order to prevent further erosion of the parking area and more importantly the likely loss of a section of the coastal road			

(17) Please describe how the general objectives of Integrated Environmental Management as set out in section 23 of NEMA have been taken into account:

"The purpose of Chapter 5 of NEMA is to promote the application of appropriate environmental management tools in order to ensure the integrated environmental management of activities. The general objective of integrated environmental management is to :
(a) promote the integration of the principles of environmental management set out in section 2 into the making of all decisions which may have a significant effect on the environment; *(See next table box numbered 18 below)*
(b) identify, predict and evaluate the actual and potential impact on the environment, socio-economic conditions and cultural heritage, the risks and consequences *(Section F of the BAR and especially point 6)* and alternatives*(Section E of the BAR)* and options for mitigation of activities, with a view to minimising negative impacts, maximising benefits, and promoting compliance with the principles of environmental management set out in section 2;
(c) ensure that the effects of activities on the environment receive adequate consideration before actions are taken in connection with them; *(the entire BAR process followed under NEMA for this application)*
(d) ensure adequate and appropriate opportunity for public participation in decisions that may affect the environment; *(refer Section C of the BAR)*
(e) ensure the consideration of environmental attributes in management and decision making which may have a significant effect on the environment; *(Section F of the BAR)* and
(f) identify and employ the modes of environmental management best suited to ensuring that a particular activity is pursued in accordance with the principles of environmental management set out in section 2. *(Section F of the BAR and the EMP)*

(18) Please describe how the principles of environmental management as set out in section 2 of NEMA have been taken into account:

The proposed activities were assessed bearing in mind, *inter alia* the following principles of environmental management:

- placing people and their needs at the forefront of its concern (*rehabilitation of the parking area*)
- promote socially, environmentally and economically sustainable development (*BAR assessment process*)
- the avoidance and minimisation of the disturbance of ecosystems and loss of biological diversity; (*re-instatement of the mouth position and design along with construction phase considerations and placing people and their needs first*)
- the avoidance and minimisation of pollution and degradation of the environment (*rehabilitation of the public parking area and re-instatement of the mouth of the estuary ~650 metres to the east to protect the coastal road*).
- avoidance of disturbance of any elements of cultural heritage;(*none are relevant to this project*)
- recycling of waste and disposal of waste in responsible manner;
- cautious and risk –averse approach in decision which considers limits of knowledge; (*well understood project scope and implementation methodology)*
- avoidance and minimisation of negative impacts;(*EMP and design*)

These considerations lead to a proposal which is considered the best practical environmental option, does not discriminate against any person, recognises the participation of all interested and affected parties and are socially, environmentally and economically sustainable.

SECTION E: ALTERNATIVES

Please Note: Before completing this section, first consult this Department's *Guideline on Alternatives* (August 2010) available on the Department's website (**http://www.capegateway.gov.za/eadp**).

"Alternatives", in relation to a proposed activity, means different means of meeting the general purposes and requirements of the activity, which may include alternatives to –

(a) the property on which, or location where, it is proposed to undertake the activity;
(b) the type of activity to be undertaken;
I the design or layout of the activity;
(d) the technology to be used in the activity;
(e) the operational aspects of the activity; and
(f) the option of not implementing the activity.

The NEMA prescribes that the procedures for the investigation, assessment and communication of the potential consequences or impacts of activities on the environment must, *inter alia*, with respect to every application for environmental authorisation –

- ensure that the general objectives of integrated environmental management laid down in NEMA and the National Environmental Management Principles set out in NEMA are taken into account; and
- include an investigation of the potential consequences or impacts of the alternatives to the activity on the environment and assessment of the significance of those potential consequences or impacts, including the option of not implementing the activity.

The general objective of integrated environmental management is, *inter alia*, to "*identify, predict and evaluate the actual and potential impact on the environment, socio-economic conditions and cultural heritage, the risks and consequences and alternatives and options for mitigation of activities, with a view to minimising negative impacts, maximising benefits, and promoting compliance with the principles of environmental management*" set out in NEMA.

1. In the sections below, please provide a description of any indentified and considered alternatives and alternatives that were found to be feasible and reasonable.
   Please note: Detailed written proof the investigation of alternatives must be provided and motivation if no reasonable or feasible alternatives exist.

(a) Property and location/site alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts, or detailed motivation if no reasonable or feasible alternatives exist:

None

(b) Activity alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts, or detailed motivation if no reasonable or feasible alternatives exist:

None

(c) Design or layout alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts, or detailed motivation if no reasonable or feasible alternatives exist:

NOTE: EMERGENCY BANK SLOPING PROCEDURE: There is an urgent need to just slope the embankment of the parking area so that it does not present a danger to the public at large. Although the area is cordoned off the public still transgresses onto the area up to the egde of the embankment. This is a temporary measure that cannot wait until the EIA process for the Alternatives are completed. All the material on site will be used in the sloping of the embankment and if necessary fine clean soil will be spread over the surface to create a smooth area.

Background to the selection of alternatives- Element Consulting Engineers used specialist engineering design approaches to determine the storm surge level and this was estimated from available information to be 0.4 metres. This level was incorporated into the design of protection works and this would be the maximum circumstances corresponding to storm winds. Water levels will be regulated by the lowest point of the sand bank that is blocking the outflow of the Kleinrivier into the sea. From the survey done this was determined to be in the order of 1.1-1.3 metres Mean Sea Level (MSL) and this is incorporated into the revetment design.
From the engineering principles of storm effects the following tabular representations can be made. All water levels used were obtained from the South African Navy Hydrographic Office (SANHO) by the engineering team and are given in the Table below.

Calculated levels relative to MSL	
Level Name	**Metres above MSL (m)**
Possible flood/storm level	+2.8
Highest Astronomical Tide (HAT)	+1.27
Current sand level	+1.25
Mean Sea Level (MSL)	0
Mean Low Water Spring (MLWS)	-0.53
Chart Datum (CD)	-0.8

For the preliminary design phase the consulting engineers estimated the possible flood/storm level to be +2.8 above MSL. This was deduced from historical data and video footage of severe storm events. Based on the results in the Table the engineers based their designs on the 1.8 to 2.2 metre incoming significant wave heights encountered at the toe of the structure. Although the significant wave height due to offshore conditions, based on Slangkop data, is calculated to be in the range of 3.5 metres, it is estimated that the wave height carried over the sand bank, between the sea and river during breaching will only be in the order of 1.8-2.2 metres. This wave height region (1.8-2.2m) will thus be the incoming wave height encountered at the toe of the newly constructed revetment.
According to the engineers this is still a conservative approach in terms of the incident waves that will be encountered by the structure. This conservative approach ensures that the preliminary concepts can absorb storms with larger return periods. The design is based on a 1:10 year return period, but 1:20 year effects is still within the design limits of the structures.

Alternative 1: Parking area bank rehabilitation by means of rock stabilisation (Non-preferred)- This alternative consists of shaping the face of the parking lot on the beach end to a slope of 1:2 vertical to horizontal, from the top of the parking lot surface. The top of the parking lot surface is located at +5.25 msl. The top of the rock revetment will be located at +4.25 msl and the intervening sloped one metre height difference will have a natural vegetation cover to act as barrier between the parking area and the rock revetment. The rock protection will consist of two layers of rock placed on a geofabric that will be placed at a depth of ~2 metres below the present sea sand level located at +1.25 msl. Directly on top of the geofabric layer will be placed an inner filter layer of rock ~0.5 m thick, that will consist of rocks with a weight of 10-100 kg. On top of this inner filter layer of rock will be placed an outer armour layer of rock ~2.0 m thick that will consist of rocks with a weight of 800-1200 kg. The rock protection works will have a flat section of ~2.5 metres which is level with the sea sand at the foot of the parking embankment, whereafter it will slope upwards at a slope of 1:2 to the top level which will be at +4.25 msl (see Site Plans in Appendix B).
The rock would have to be brought into the area from an extraneous source as there is none of this suitable material near the site. In addition the breaching position of the Kleinriviersvlei needs to be moved from its current position at the parking area ~650 metres to the east where the mouth used to be breached (or further east) for ~the last 30 years. This needs to be done in order to protect further back-erosion of the remnant foredune that protects the coastal tar road. Note that the rehabilitation of the parking embankment by means of rock rehabilitation is not the preferred alternative for a number of other factors as well. These are that it is a hard solution where the transport of the rock and logistical constraints would result in more than 600 trips. Rock protection is difficult to cover by sand, it is difficult to remove and can be dangerous for kids and swimmers. The material costs are similar to the other alternatives.
Alternative 2: Parking area bank rehabilitation by means of concrete stablisation (Non-preferred)- This alternative also consists of shaping the face of the parking lot on the beach end to a slope of 1:2 vertical to horizontal, from the top of the parking lot surface. The top of the parking lot surface is located at +5.25 msl. The top of the concrete slab will be located just below +4.25 msl and the intervening sloped one metre height difference will have a natural vegetation cover to act as barrier between the parking area and the concrete slab. The concrete slab protection will consist of a 50mm blinding section which is overlain by a 200mm thick concrete slab. This slab will extend more than 2 metres in a vertical direction below the natural beach sand level located at +1.25 msl. In front of this vertical concrete slab section will be a barrier of natural large rocks that will extend to ~2 metres below the natural sand level to protect undercutting of the concrete slab. The natural rock at the foot of the concrete slab will be ~2.5 metres wide. The concrete slab will be cast in 1.5 metre wide sections to protect the front of the embankment of the parking area (see Site Plans in Appendix B).
The concrete and natural rock would have to be brought into the area from an extraneous source as there is none of this suitable material near the site. In addition the breaching position of the Kleinriviersvlei needs to be moved from its current position at the parking area ~650 metres to the east where the mouth used to be breached (or further east) for ~the last 30 years. This needs to be done in order to protect further back-erosion of the remnant foredune that protects the coastal tar road. Note that the rehabilitation of the parking embankment by means of a concrete slab is also not the preferred alternative for a number of other factors as well. These are that it is a hard solution and difficult to cover by sand, it is difficult to remove and can be dangerous for kids and swimmers. The material costs are similar to the other alternatives.

Alternative 3: Parking area bank rehabilitation by means of sand bag stablisation (Preferred)- This alternative also consists of shaping the face of the parking lot on the beach end to a slope of 1:2 vertical to horizontal, from the top of the parking lot surface. The top of the parking lot surface is located at +5.25 msl. The top of the sandbag structure will be located at +3.6 msl and the intervening sloped 1.4 metre height difference will have a natural vegetation cover to act as barrier between the parking area and the sandbag structure. The sandbag structure protection will consist of a geofabric layer which is overlain by a double row of interlocking individual 4 ton sandbags. This sandbag structure will extend ~2 metres vertical in a sloped direction below the natural beach sand level located at +1.25 msl. This sandbag barrier below the natural sand surface is there to protect undercutting of the sandbag structure protecting the parking area embankment (see Site Plans in Appendix B).
The empty sandbags are vey light and easy to carry. The sand that is required to fill the bags does not have to come from an extraneous source and should be obtained from the area where we want to create the low spot ~650 metres to the east of the parking area where the mouth should breach in future where the mouth used to be breached (or further east) for ~the last 30 years. This needs to be done in order to protect further back-erosion of the remnant foredune that protects the coastal tar road. Note that the rehabilitation of the parking embankment by means of a sandbag structure is also the preferred alternative for a number of other factors as well. These are that it is a soft solution and is easily covered by sand and also by natural vegetation. It is furthermore easy to remove and is safe for kids and swimmers. The material costs are similar to the other alternatives.

(d) Technology alternatives (e.g. to reduce resource demand and resource use efficiency) to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts, or detailed motivation if no reasonable or feasible alternatives exist:

See Alternative 3 (Preferred alternative above)- This alternative will make use of natural materials on site (sand), removed from the area where the mouth was opened in the past, often by artificial means, ~650 metres to the east of the parking lot. This alternative would mean that extraneous materials such as rock and stone and cement/concrete would not have to be brought into the area. This technology where the beach sand is placed in large, strong, specially designed bags in overlapping fashion, is well proven with use in the revetment of, amongst other the beach in the Umhlanga Rocks area.

(e) Operational alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts, or detailed motivation if no reasonable or feasible alternatives exist:

None

(f) the option of not implementing the activity (the No-Go Option):

If the no-go option is implemented the *status quo* will be maintained where there is no protection for the parking area with the very real possibility that the parking area will erode further. Because of the natural rock formations immediately to the west of the parking area the eddy currents created when the mouth breaches at the parking area will cause further adverse back erosion of the remnant of the fore dune in the area where it is now located only 6-8 metres from the coastal road, with the very real possibility that the coastal road will collapse as well. It is imperative that the mouth opening is moved ~650 metres to the east from the parking lot if the threat of collapse of the coastal road is to be prevented and the no-go option will not achieve this.

(g) Other alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts, or detailed motivation if no reasonable or feasible alternatives exist:

None

(h) Please provide a summary of the alternatives investigated and the outcomes of such investigation:

Please note: If no feasible and reasonable alternatives exist, the description and proof of the investigation of alternatives, together with motivation of why no feasible or reasonable alternatives exist, must be provided.

SECTION F: IMPACT ASSESSMENT, MANAGEMENT, MITIGATION AND MONITORING MEASURES

Please note: The information in this section must be duplicated for all the feasible and reasonable alternatives (where relevant).

1. PLEASE DESCRIBE THE MANNER IN WHICH THE DEVELOPMENT WILL IMPACT ON THE FOLLOWING ASPECTS:

(a) Geographical and physical aspects:

The rehabilitation of the parking area embankment will prevent further erosion of the embankment and near-fore dune. The proposed alternative will also result in the movement of Kleinriviersvlei mouth opening ~650 metres to the east of the position of the parking area. The relocation to the east of the mouth opening is necessary to prevent further back-erosion of the remnant of the fore dune that is threatening the continued existence of the coastal road.

(b) Biological aspects:

Will the development have an impact on critical biodiversity areas (CBAs) or ecological support areas (CSAs)?	YES	**NOX**
If yes, please describe:		
No existence of a CBA or ESA could be determined for this area.		
Will the development have (an impact) on terrestrial vegetation, or aquatic ecosystems (wetlands, estuaries or the coastline)?	**YESX**	NO
If yes, please describe:		
The proposed rehabilitation is aimed, amongst other to prevent further back-erosion of the remnant fore dune vegetation immediately to the west of the parking area. This vegetation that stabilises the fore dune has been back-eroded to within 6-8 metres of the coastal tar road and there is a threat that further erosion of this area will cause collapse of the tar road. A further purpose of the proposed alternative is to relocate the mouth opening position of the Kleinriviersvlei ~650 metres to the east. The impact of the proposed rehabilitation will thus also result in the relocation of the present position of the mouth opening eastwards, to the position where it has been opened for ~the last 30-odd years.		
Will the development have an impact on any populations of threatened plant or animal species, and/or on any habitat that may contain a unique signature of plant or animal species?	YES	**NOX**
If yes, please describe:		
Please describe the manner in which any other biological aspects will be impacted:		

(c) Socio-Economic aspects:

What is the expected capital value of the activity on completion?	~R4.3 million	
What is the expected yearly income or contribution to the economy that will be generated by or as a result of the activity?	Nil	
Will the activity contribute to service infrastructure?	**YESX**	NO
How many new employment opportunities will be created in the construction phase of the activity?		NIL
What is the expected value of the employment opportunities during the construction phase?	RNIL	
What percentage of this will accrue to previously disadvantaged individuals?		NIL%
How will this be ensured and monitored (please explain):		
Contractors will use existing personnel-there will be added job security during construction. Filling of the sandbags could possibly be done with temporary labour, but this would be dependent on the contractor appointed.		
How many permanent new employment opportunities will be created during the operational phase of the activity?	NIL	
What is the expected current value of the employment opportunities during the first 10 years?	Nil	
What percentage of this will accrue to previously disadvantaged individuals?		
How will this be ensured and monitored (please explain):		
Presently employed personnel of the municipality will do the upkeep and maintenance		
Any other information related to the manner in which the socio-economic aspects will be impacted:		

(d) Cultural and historic aspects:

There will be no cultural and historic impacts

2. WASTE AND EMISSIONS

(a) Waste (including effluent) management

Will the activity produce waste (including rubble) during the construction phase?	YES	**NOX**
If yes, indicate the types of waste (actual type of waste, e.g. oil, and whether hazardous or not) and estimated quantity per type?		M^3

Will the activity produce waste during its operational phase?	YES	**NOX**
If yes, indicate the types of waste (actual type of waste, e.g. oil, and whether hazardous or not) and estimated quantity per type.		0/month

Where and how will the waste be treated / disposed of (describe)?		
If yes, indicate the types of waste (actual type of waste, e.g. oil, and whether hazardous or not) and estimated quantity per type per phase of the development?		
Has the municipality or relevant authority confirmed that sufficient capacity exist for treating / disposing of the waste to be generated by this activity(ies)? If yes, provide written confirmation from Municipality or relevant authority	YES	NO
Will the activity produce waste that will be treated and/or disposed of at another facility other than into a municipal waste stream?	YES	**NOX**
If yes, has this facility confirmed that sufficient capacity exist for treating / disposing of the waste to be generated by this activity(ies)? Provide written confirmation from the facility and provide the following particulars of the facility:	YES	NO
Does the facility have an operating license? (If yes, please attach a copy of the license.)	YES	NO

Facility name:	
Contact person:	
Postal address:	
	Postal code:
Telephone:	Cell:
E-mail:	Fax:

Describe the measures that will be taken to reduce, reuse or recycle waste:

(b) Emissions into the atmosphere

Will the activity produce emissions that will be disposed of into the atmosphere?	YES	**NOX**
If yes, does it require approval in terms of relevant legislation?	YES	NO
Describe the emissions in terms of type and concentration and how it will be treated/mitigated:		

3. WATER USE

Please indicate the source(s) of water for the activity by ticking the appropriate box(es)

Municipal	Water board	Groundwater	River, Stream, Dam or Lake	Other	**The activity will not use water**

If water is to be extracted from a groundwater source, river, stream, dam, lake or any other natural feature, please indicate the volume that will be extracted per month:	m^3

Please provide proof of assurance of water supply (eg. Letter of confirmation from municipality / water user associations, yield of borehole)		
Does the activity require a water use permit / license from DWAF?	YES	**NOX**
If yes, please submit the necessary application to Department of Water Affairs and attach proof thereof to this application.		
Describe the measures that will be taken to reduce water demand, and measures to reuse or recycle water:		

4. POWER SUPPLY

Please indicate the source of power supply eg. Municipality / Eskom / Renewable energy source

THe activity will not use power.

If power supply is not available, where will power be sourced from?

5. ENERGY EFFICIENCY

Describe the design measures, if any, that have been taken to ensure that the activity is energy efficient:
Making use of sandbags and using available sea sand near the site will be much more energy efficient than carting extraneous materials such as the quantities of rock required for other alternatives

Describe how alternative energy sources have been taken into account or been built into the design of the activity, if any:

None have been applicable

6. DESCRIPTION AND ASSESSMENT OF THE SIGNIFICANCE OF IMPACTS PRIOR TO AND AFTER MITIGATION

Please note: While sections are provided for impacts on certain aspects of the environment and certain impacts, the sections should also be copied and completed for all other impacts.

(a) **Impacts that may result from the planning, design and construction phase (briefly describe and compare the potential impacts (as appropriate), significance rating of impacts, proposed mitigation and significance rating of impacts after mitigation that are likely to occur as a result of the planning, design and construction phase.**

Potential impacts on geographical and physical aspects:	
Nature of impact:	The rehabilitation of the parking lot will protect the embankment and at the same time prevent further back-erosion of the remnant of the fore dune by moving the mouth opening ~650 metres to the east of the parking lot.
Duration of impact	NG: None A1: Long term A2: Long term A3: Long term
Extent of impact	NG: None A1: Small A2: Small A3: Small
Probability of occurrence:	NG: None A1: Certain A2: Certain A3: Certain
Degree to which the impact can be reversed:	NG: n/a A1: Low A2: Low A3: High
Degree to which the impact may cause irreplaceable loss of resources:	NG; High A1: Low A2: Low A3: Low
Cumulative impact prior to mitigation:	NG; High(-) A1: Medium(+) A2: Medium(+) A3: Medium(+)
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	NG; n/a A1: Medium A2: Medium A3: Medium
Degree to which the impact can be mitigated:	NG; n/a A1: High

	A2: High A3: High
Proposed mitigation:	Implement EMP to respect "no-go" areas and manage rehabilitation of the parking area and eastward re-alignment of the mouth breaching position. Keep cleared areas to the minimum and appoint Environmental Control Officer to oversee implementation of EMP.
Cumulative impact post mitigation:	NG: N/a A1: Medium(+) A2: Medium(+) A3: High(+)
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	NG: n/a A1: Medium-High(+) A2: Medium-High(+) A3: High(+)

Potential impact on biological aspects:	
Nature of impact:	None
Duration of impact:	NG: n/a A1: n/a A2: n/a A3: n/a
Extent of impact	NG: n/a A1: n/a A2: n/a A3: n/a
Probability of occurrence:	NG: n/a A1: n/a A2: n/a A3: n/a
Degree to which the impact can be reversed:	NG: n/a A1: n/a A2: n/a A3: n/a
Degree to which the impact may cause irreplaceable loss of resources:	NG: n/a A1: n/a A2: n/a A3: n/a
Cumulative impact prior to mitigation:	NG: n/a A1: n/a A2: n/a A3: n/a
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	NG: n/a A1: n/a A2: n/a A3: n/a
Degree to which the impact can be mitigated:	NG: n/a A1: n/a A2: n/a A3: n/a
Proposed mitigation:	None
Cumulative impact post mitigation:	NG: n/a A1: n/a A2: n/a A3: n/a
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	NG: n/a A1: n/a A2: n/a A3: n/a

Potential impacts on socio-economic aspects:	
Nature of impact:	The parking area will be rehabilitated and fulfil its useful function again. The re-alignment of the mouth breaching position will prevent a further threat from the Kleinriviersvlei to erode the coastal tar road.
Duration of impact	NG: None A1: Long term A2: Long term A3: Long term
Extent of impact	NG: None A1: Small

	A2: Small A3: Small
Probability of occurrence:	NG: None A1: Certain A2: Certain A3: Certain
Degree to which the impact can be reversed:	NG: n/a A1: Low A2: Low A3: High
Degree to which the impact may cause irreplaceable loss of resources:	NG; None A1: Low A2: Low A3: Low
Cumulative impact prior to mitigation:	NG; High(-) A1: Medium(+) A2: Medium(+) A3: Medium(+)NG; n/a
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	NG; n/a A1: Medium A2: Medium A3: MediumNG; n/a
Degree to which the impact can be mitigated:	NG; n/a A1: High A2: High A3: HighNG; n/a
Proposed mitigation:	Ensure that local contractors and labourers get priority to do the upgrade
Cumulative impact post mitigation:	NG: N/a A1: Medium(+) A2: Medium(+) A3: High(+)
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	NG: n/a A1: Medium-High(+) A2: Medium-High(+) A3: High(+)

Potential impacts on cultural-historical aspects:	
Nature of impact:	None
Extent of impact:	n/a
Duration of impact	n/a
Probability of occurrence:	n/a
Degree to which the impact can be reversed:	n/a
Degree to which the impact may cause irreplaceable loss of resources:	n/a
Cumulative impact prior to mitigation:	n/a
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	n/a
Degree to which the impact can be mitigated:	n/a
Proposed mitigation:	n/a
Cumulative impact post mitigation:	n/a
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	n/a

Potential noise impacts:	
Nature of impact:	General construction noise caused during the construction phase
Extent of impact:	NG: None A1: Small A2: Small A3: Small
Duration of impact	NG: None A1: Temporary A2: Temporary A3: Temporary
Probability of occurrence:	NG: None A1:Unlikely A2: Unlikely A3: Unlikely

Degree to which the impact can be reversed:	NG: n/a A1: Low A2: Low A3:Low
Degree to which the impact may cause irreplaceable loss of resources:	NG; None A1: Low A2: Low A3: Low
Cumulative impact prior to mitigation:	NG; n/a A1: Low(-) A2: Low(-) A3: Low(-)
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	NG; n/a A1: Low(-) A2: Low(-) A3: Low(-)
Degree to which the impact can be mitigated:	NG; n/a A1: High A2: High A3 High
Proposed mitigation:	Implement Environmental Management Plan, restrict construction to normal working hours and appoint Environmental Control Officer to oversee implementation of EMP.
Cumulative impact post mitigation:	NG: None A1: Very Low(-) A2: Very Low(-) A3: Very Low(-)
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	NG: None A1: Low(-) A2: Low(-) A3: Low(-)

Potential visual impacts:	
Nature of impact:	Both the rehabilitated embankment of the parking area and the re-located mouth breaching position will be visible, but not from the residences above and will be in keeping with, and enhance the aesthetic character of the existing surrounding parking area.
Extent of impact:	NG: None A1: Small A2: Small A3: Small
Duration of impact	NG: None A1: Long term A2: Long term A3: Long term
Probability of occurrence:	NG: None A1: Certain A2: Certain A3: Certain
Degree to which the impact can be reversed:	NG: n/a A1: Low A2: Low A3: Low
Degree to which the impact may cause irreplaceable loss of resources:	NG; None A1: Low A2: Low A3: Low
Cumulative impact prior to mitigation:	NG; n/a A1: Low(-) A2: Low(-) A3: Low(-)
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	NG; n/a A1: Low(-) A2: Low(-) A3 Low(-)
Degree to which the impact can be mitigated:	NG; n/a A1: Low A2: Low A3: Low
Proposed mitigation:	Implement Environmental Management Plan and keep area in an orderly manner during construction with proper screening-off of working areas.
Cumulative impact post mitigation:	NG: None A1: Very Low(-)

	A2: Very Low(-) A3: Very Low(-)
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	NG: None A1: Low(-) A2: Low(-) A3: Low(-)

(b) **Impacts that may result from the operational phase (briefly describe and compare the potential impacts (as appropriate), significance rating of impacts, proposed mitigation and significance rating of impacts after mitigation that are likely to occur as a result of the operational phase.**

Potential impacts on the geographical and physical aspects:	
Nature of impact:	The rehabilitation of the parking area and the re-location of the mouth breaching position eastwards will transform the present situation to something which was there before.
Duration of impact	NG: None A1: Long term A2: Long term A3: Long term
Extent of impact	NG: None A1: Small A2: Small A3: Small
Probability of occurrence:	NG: None A1: Certain A2: Certain A3: Certain
Degree to which the impact can be reversed:	NG: n/a A1: Low A2: Low A3: Medium
Degree to which the impact may cause irreplaceable loss of resources:	NG; None A1: Low A2: Low A3: Low
Cumulative impact prior to mitigation:	NG: High(-) A1: Medium(+) A2: Medium(+) A3: High(+)
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	NG: High(-) A1: Medium(+) A2: Medium(+) A3: High(+)
Degree to which the impact can be mitigated:	NG; n/a A1: Medium A2: Medium A3: High
Proposed mitigation:	Manage rehabilitated parking area embankment and maintain mouth breaching position ~650 metres to the east of the parking lot.
Cumulative impact post mitigation:	NG: None A1: Medium(+) A2: Medium(+) A3: High(+)
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	NG: None A1: Medium(+) A2: Medium(+) A3: High(+)

Potential impact biological aspects:	
Nature of impact:	None
Duration of impact:	NG: n/a A1: n/a A2: n/a A3: n/a
Extent of impact	NG: n/a A1: n/a A2: n/a A3: n/a
Probability of occurrence:	NG: n/a A1: n/a A2: n/a A3: n/a

Degree to which the impact can be reversed:	NG: n/a A1: n/a A2: n/a A3: n/a
Degree to which the impact may cause irreplaceable loss of resources:	NG: n/a A1: n/a A2: n/a A3: n/a
Cumulative impact prior to mitigation:	NG: n/a A1: n/a A2: n/a A3: n/a
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	NG: n/a A1: n/a A2: n/a A3: n/a
Degree to which the impact can be mitigated:	NG: n/a A1: n/a A2: n/a A3: n/a
Proposed mitigation:	None
Cumulative impact post mitigation:	NG: n/a A1: n/a A2: n/a A3: n/a
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	NG: n/a A1: n/a A2: n/a A3: n/a

Potential impacts on the socio-economic aspects:	
Nature of impact:	The parking area will be rehabilitated and fulfil its useful function again. The re-alignment of the mouth breaching position will prevent a further threat from the Kleinriviersvlei to erode the coastal tar road.
Duration of impact	NG: None A1: Long term A2: Long term A3: Long term
Extent of impact	NG: None A1: Small A2: Small A3: Small
Probability of occurrence:	NG: None A1: Certain A2: Certain A3: Certain
Degree to which the impact can be reversed:	NG: n/a A1: Low A2: Low A3: High
Degree to which the impact may cause irreplaceable loss of resources:	NG; None A1: Low A2: Low A3: Low
Cumulative impact prior to mitigation:	NG; High(-) A1: Medium(+) A2: Medium(+) A3: Medium(+)
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	NG; n/a A1: Medium A2: Medium A3: Medium
Degree to which the impact can be mitigated:	NG; n/a A1: High A2: High A3: High
Proposed mitigation:	Maintain proper maintenance of the rehabilitated infrastructure
Cumulative impact post mitigation:	NG: N/a A1: Medium(+) A2: Medium(+) A3: High(+)
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	NG: n/a A1: Medium-High(+) A2: Medium-High(+)

	A3: High(+)

Potential impacts on the cultural-historical aspects:	
Nature of impact:	None
Extent of impact:	n/a
Duration of impact	n/a
Probability of occurrence:	n/a
Degree to which the impact can be reversed:	n/a
Degree to which the impact may cause irreplaceable loss of resources:	n/a
Cumulative impact prior to mitigation:	n/a
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	n/a
Degree to which the impact can be mitigated:	n/a
Proposed mitigation:	n/a
Cumulative impact post mitigation:	n/a
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	n/a

Potential noise impacts:	
Nature of impact:	None
Extent of impact:	NG: n/a A1: n/a A2: n/a A3: n/a
Duration of impact	NG: n/a A1: n/a A2: n/a A3: n/a
Probability of occurrence:	NG: n/a A1: n/a A2: n/a A3: n/a
Degree to which the impact can be reversed:	NG: n/a A1: n/a A2: n/a A3: n/a
Degree to which the impact may cause irreplaceable loss of resources:	NG: n/a A1: n/a A2: n/a A3: n/a
Cumulative impact prior to mitigation:	NG: n/a A1: n/a A2: n/a A3: n/a
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	NG: n/a A1: n/a A2: n/a A3: n/a
Degree to which the impact can be mitigated:	NG: n/a A1: n/a A2: n/a A3: n/a
Proposed mitigation:	None
Cumulative impact post mitigation:	NG: n/a A1: n/a A2: n/a A3: n/a
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	NG: n/a A1: n/a A2: n/a A3: n/a

Potential visual impacts:	
Nature of impact:	Both the rehabilitated embankment of the parking area and the re-located mouth breaching position will be visible, but not from the residences above and will be in keeping with, and enhance the aesthetic character of the existing surrounding parking area.
Extent of impact:	NG: None A1: Small A2: Small A3: Small

Duration of impact	NG: None A1: Long term A2: Long term A3: Long term
Probability of occurrence:	NG: None A1: Certain A2: Certain A3: Certain
Degree to which the impact can be reversed:	NG: n/a A1: Low A2: Low A3: Low
Degree to which the impact may cause irreplaceable loss of resources:	NG; None A1: Low A2: Low A3: Low
Cumulative impact prior to mitigation:	NG; n/a A1: Low(-) A2: Low(-) A3: Low(-)
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	NG; n/a A1: Low(-) A2: Low(-) A3 Low(-)
Degree to which the impact can be mitigated:	NG; n/a A1: Low A2: Low A3: Low
Proposed mitigation:	Implement Environmental Management Plan and keep area in an orderly manner post construction with proper maintenance of the sandbag embankment and mouth position maintenance.
Cumulative impact post mitigation:	NG: None A1: Very Low(-) A2: Very Low(-) A3: Very Low(-)
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	NG: None A1: Low(-) A2: Low(-) A3: Low(-)

(c) **Impacts that may result from the decommissioning and closure phase (briefly describe and compare the potential impacts (as appropriate), significance rating of impacts, proposed mitigation and significance rating of impacts after mitigation that are likely to occur as a result of the decommissioning and closure phase.**

NOTE THAT THERE WILL BE NO DECOMMISSIONING AND CLOSURE PHASE

Potential impacts on the geographical and physical aspects:	
Nature of impact:	None
Extent of impact:	n/a
Duration of impact	n/a
Probability of occurrence:	n/a
Degree to which the impact can be reversed:	n/a
Degree to which the impact may cause irreplaceable loss of resources:	n/a
Cumulative impact prior to mitigation:	n/a
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	n/a
Degree to which the impact can be mitigated:	n/a
Proposed mitigation:	n/a
Cumulative impact post mitigation:	n/a
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	n/a

Potential impact biological aspects:	
Nature of impact:	None
Extent of impact:	n/a
Duration of impact	n/a
Probability of occurrence:	n/a
Degree to which the impact can be reversed:	n/a
Degree to which the impact may cause irreplaceable loss of resources:	n/a
Cumulative impact prior to mitigation:	n/a
Significance rating of impact prior to mitigation	n/a

(Low, Medium, Medium-High, High, or Very-High)	
Degree to which the impact can be mitigated:	n/a
Proposed mitigation:	n/a
Cumulative impact post mitigation:	n/a
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	n/a

Potential impacts on the socio-economic aspects:	
Nature of impact:	None
Extent of impact:	n/a
Duration of impact	n/a
Probability of occurrence:	n/a
Degree to which the impact can be reversed:	n/a
Degree to which the impact may cause irreplaceable loss of resources:	n/a
Cumulative impact prior to mitigation:	n/a
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	n/a
Degree to which the impact can be mitigated:	n/a
Proposed mitigation:	n/a
Cumulative impact post mitigation:	n/a
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	n/a

Potential impacts on the cultural-historical aspects:	
Nature of impact:	None
Extent of impact:	n/a
Duration of impact	n/a
Probability of occurrence:	n/a
Degree to which the impact can be reversed:	n/a
Degree to which the impact may cause irreplaceable loss of resources:	n/a
Cumulative impact prior to mitigation:	n/a
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	n/a
Degree to which the impact can be mitigated:	n/a
Proposed mitigation:	n/a
Cumulative impact post mitigation:	n/a
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	n/a

Potential noise impacts:	
Nature of impact:	None
Extent of impact:	n/a
Duration of the impact	n/a
Probability of occurrence:	n/a
Degree to which the impact can be reversed:	n/a
Degree to which the impact may cause irreplaceable loss of resources:	n/a
Cumulative impact prior to mitigation:	n/a
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	n/a
Degree to which the impact can be mitigated:	n/a
Proposed mitigation:	n/a
Cumulative impact post mitigation:	n/a
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	n/a

Potential visual impacts:	
Nature of impact:	None
Extent of impact:	n/a
Duration of the impact	n/a
Probability of occurrence:	n/a
Degree to which the impact can be reversed:	n/a

Degree to which the impact may cause irreplaceable loss of resources:	n/a
Cumulative impact prior to mitigation:	n/a
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	n/a
Degree to which the impact can be mitigated:	n/a
Proposed mitigation:	n/a
Cumulative impact post mitigation:	n/a
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	n/a

(d) **Any other impacts:**

Potential impact:	
Nature of impact:	None
Extent of impact:	n/a
Duration of the impact	n/a
Probability of occurrence:	n/a
Degree to which the impact can be reversed:	n/a
Degree to which the impact may cause irreplaceable loss of resources:	n/a
Cumulative impact prior to mitigation:	n/a
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	n/a
Degree to which the impact can be mitigated:	n/a
Proposed mitigation:	n/a
Cumulative impact post mitigation:	n/a
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	n/a

7. SPECIALIST INPUTS/STUDIES AND RECOMMENDATIONS

Please note: Specialist inputs/studies must be attached to this report as **Appendix G**. Also take into account the Department's Guidelines on the Involvement of Specialists in EIA Processes available on the Department's website (**http://www.capegateway.gov.za/eadp**).

Specialist inputs/studies and recommendations:

The specialist studies and reports about artificial mouth breaching of the Kleinriviersvlei as well as coastal bank stabilization and rehabilitation techniques and measures are included in the BAR.

8. IMPACT SUMMARY

Please provide a summary of all the above impacts.

The proposed rehabilitation of the Grotto parking area was assessed by means of the basic impact assessment procedure. The location of the rehabilitation of the parking area has no alternatives due to the fact that this existing public parking area is fixed on this section of Erf 4771, Hermanus. There are three alternative embankment stabilization methodologies for rehabilitation of the parking lot that were investigated. These all three consisted essentially of a process whereby the present embankment would be shaped to a slope of 1:2 (vertical to horizontal). This sloped bank would then be protected by means of either large rocks (Alternative 1), concrete slab (Alternative 2) or by means of stacked large sandbags constructed of a special tough material, weighing ~4 tons each when filled with sand (Alternative 3). The stabilization would consist of the material used to be placed from ~2 metres below the present sand level of the sea to the approximately one metre below the top of the grpound level of the parking lot at +5.25 mean sea level. With all three alternatives the place where the mouth of the Kleinriviersvlei currently breaches at the position of the parking area, needs to be moved ~650 metres to the east where the mouth used to be breached (or still further east) for the last more than 30 years. The reason for this is that with the last to breachings of the mouth at the location of the parking lot, it has caused extensive backscour of the old foredune so that there are now areas where the remnant foredune is only between 6-8 metres from the coastal road. The no-go option would leave the breaching position of the mouth at the parking area and further backscour of the remnant foredune is inevitable and this will most probably result in the loss of the coastal tar road. Both Alternatives 1 and 2 are considered hard methods as both the rock and concrete stabilization wall had the following similarities. For both alternatives the stabilization materials would have to be brought in from outside of the area. Both these hard solutions are difficult to be naturally covered by beach sand and to vegetate them has no chance of success. Both alternatives 1 and 2 are also difficult to remove. With both these alternatives the moving of the position of mouth breaching would involve a situation where the newly formed high sandy areas would have to be removed to create a low spot in the sand berm between the vlei and the sea. Therefore these alternatives 1 and 2 are not the preferred alternatives. Alternative 3(preferred alternative) also has to meet the same basic requirements to stabilise the parking area embankment as alternatives 1 and 2. It is however considered as a soft option. The reason for this is that it is not dangerous to users of the area, that it is fairly easily covered by natural sand processes as well as vegetation. The sandbags are also easily removed or repaired if this does become necessary. A further positive factor is that the bags can be filled near the site, using the sand from the area where the future mouth breaching will take place, thus creating the low section as one operation.

The geographical and physical impacts will be similar to what has happened in the area for at least 30 years in the past. There will be no historical and cultural impacts. There will be little noise during the construction phase and the visual impact will be similar to what was there before. The most important positive impact will be that the further erosion of the parking area will be prevented and moving the mouth position eastwards away from the present at the parking area will undoubtedly reduce the further back erosion of the remnant fore dune threatening the collapse of the coastal tar road. The No-Go Option would obviously not present any of the positive social, economic or environmental impacts associated with the proposed preferred alternative 3.

9. OTHER MANAGEMENT, MITIGATION AND MONITORING MEASURES

(a) Over and above the mitigation measures described in Section 6 above, please indicate any additional management, mitigation and monitoring measures.

None

(b) Describe the ability of the applicant to implement the management, mitigation and monitoring measures.

The Applicant has a good history of the management of the environment in the area. This is manifested in the fact that it has won the cleanest town competition on occasion as well as the number of Blue Flag beaches that it has under its control, of which this Grotto Beach area is one.

SECTION G: ASSESSMENT METHODOLOGIES AND CRITERIA, GAPS IN KNOWLEDGE, UNDERLAYING ASSUMPTIONS AND UNCERTAINTIES

(a) Please describe adequacy of the assessment methods used.

The Impact Assessment Methodology used is described and attached as Appendix J. This methodology was found to lend itself adequately to the assessment and description of individual impacts as well as to determine the efficiency of mitigation measures.

(b) Please describe the assessment criteria used.

The assessment criteria used are described in the Impact Assessment Methodology attached as Appendix J.

(c) Please describe the gaps in knowledge.

There were no gaps in knowledge

(d) Please describe the underlying assumptions.

None

(e) Please describe the uncertainties.

None

SECTION H: RECOMMENDATION OF THE EAP

In my view (EAP), the information contained in this application form and the documentation attached hereto is sufficient to make a decision in respect of the activity applied for.	YESX	NO

If "NO", list the aspects that should be further assessed through additional specialist input/assessment or whether this application must be subjected to a Scoping & EIR process before a decision can be made:

If "YES", please indicate below whether in your opinion the activity should or should not be authorised:

Activity should be authorised:	YESX	NO
Please provide reasons for your opinion		
This is an application to rehabilitate the Grotto bay parking area and move the mouth breaching position of the Kleinriviersvlei ~650 metres to the east by using sea sand from that area to fill the sandbags that will be used to stabilise the parking area embankment. The geographical and physical impacts will be similar to what has happened in the area for at least 30 years in the past. There will be no historical and cultural impacts. There will be little noise during the construction phase and the visual impact will be similar to what was there before. The most important positive impact will be that the further erosion of the parking area will be prevented and moving the mouth position eastwards away from the present at the parking area will undoubtedly reduce the further back erosion of the remnant foredune threatening the collapse of the coastal tar road. The No-Go Option would obviously not present any of the positive social, economic or environmental impacts associated with the proposed preferred alternative 3.		
If you are of the opinion that the activity should be authorised, then please provide any conditions, including mitigation measures that should in your view be considered for inclusion in an authorisation.		
The EMP should be implemented and the construction area should be managed not to extend into the nearby wetland and milkwood area.		
Duration and Validity: Environmental authorisations are usually granted for a period of three years from the date of issue. Should a longer period be required, the applicant/EAP is requested to provide a detailed motivation on what the period of validity should be.		
Three years is fine but five would be better, given the municipal funding process that can only be commenced on an annual basis after environmental authorisation is obtained		

SECTION I: APPENDICES

The following appendices must be attached to this report:

Appendix		Tick the box if Appendix is attached
Appendix A:	**Locality map**	✓
Appendix B:	**Site plan(s)**	✓
Appendix C:	**Photographs**	✓
Appendix D:	**Biodiversity overlay map**	✓
Appendix E:	**Permit(s) / license(s) from any other organ of state including service letters from the municipality**	
Appendix F:	**Public participation information: including a copy of the register of interested and affected parties, the comments and responses report, proof of notices, advertisements and any other public participation information as required in Section C above.**	✓
Appendix G:	**Specialist Report(s)**	✓
Appendix H :	**Environmental Management Progamme**	
Appendix I:	**Additional information related to listed waste management activities (if applicable)**	
Appendix J:	**Any Other (if applicable) (Impact Assessment Methodology used)**	✓

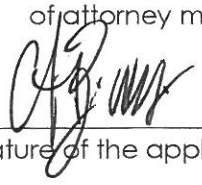
DECLARATIONS

THE APPLICANT

I .....C A Bruwer....., in my personal capacity or duly authorised (please circle the applicable option) by ...Overstrand Municipality..... thereto hereby declare that I:

- regard the information contained in this report to be true and correct, and
- am fully aware of my responsibilities in terms of the National Environmental Management Act of 1998 ("NEMA") (Act No. 107 of 1998), the Environmental Impact Assessment Regulations ("EIA Regulations") in terms of NEMA (Government Notice No. R. 543 refers), and the relevant specific environmental management Act, and that failure to comply with these requirements may constitute an offence in terms of the environmental legislation;
- appointed the environmental assessment practitioner as indicated above, which meet all the requirements in terms of regulation 17 of GN No. R. 543, to act as the independent environmental assessment practitioner for this application;
- have provided the environmental assessment practitioner and the competent authority with access to all information at my disposal that is relevant to the application;
- will be responsible for the costs incurred in complying with the environmental legislation including but not limited to –
    - costs incurred in connection with the appointment of the environmental assessment practitioner or any person contracted by the environmental assessment practitioner;
    - costs incurred in respect of the undertaking of any process required in terms of the regulations;
    - costs in respect of any fee prescribed by the Minister or MEC in respect of the regulations;
    - costs in respect of specialist reviews, if the competent authority decides to recover costs; and
    - the provision of security to ensure compliance with the applicable management and mitigation measures;
- am responsible for complying with the conditions that might be attached to any decision(s) issued by the competent authority;
- have the ability to implement the applicable management, mitigation and monitoring measures;
- hereby indemnify, the government of the Republic, the competent authority and all its officers, agents and employees, from any liability arising out of, inter alia, the content of any report, any procedure or any action for which the applicant or environmental assessment practitioner is responsible; and
- am aware that a false declaration is an offence in terms of regulation 71 of GN No. R. 543.

Please Note: If acting in a representative capacity, a certified copy of the resolution or power of attorney must be attached.



Signature of the applicant:

EnviroAfrica Overberg Environmental Planning and Impact Assessment Consultants

Name of company:

Date: 2014·04·11

THE INDEPENDENT ENVIRONMENTAL ASSESSMENT PRACTITIONER (EAP)

I .....C A Bruwer....., as the appointed independent environmental practitioner ("EAP") hereby declare that I:

- act/ed as the independent EAP in this application;
- regard the information contained in this report to be true and correct, and
- do not have and will not have any financial interest in the undertaking of the activity, other than remuneration for work performed in terms of the NEMA, the Environmental Impact Assessment Regulations, 2010 and any specific environmental management Act;
- have and will not have no vested interest in the proposed activity proceeding;
- have disclosed, to the applicant and competent authority, any material information that have or may have the potential to influence the decision of the competent authority or the objectivity of any report, plan or document required in terms of the NEMA, the Environmental Impact Assessment Regulations, 2010 and any specific environmental management Act;
- am fully aware of and meet the responsibilities in terms of NEMA, the Environmental Impact Assessment Regulations, 2010 (specifically in terms of regulation 17 of GN No. R. 543) and any specific environmental management Act, and that failure to comply with these requirements may constitute and result in disqualification;
- have ensured that information containing all relevant facts in respect of the application was distributed or made available to interested and affected parties and the public and that participation by interested and affected parties was facilitated in such a manner that all interested and affected parties were provided with a reasonable opportunity to participate and to provide comments;
- have ensured that the comments of all interested and affected parties were considered, recorded and submitted to the competent authority in respect of the application;
- have kept a register of all interested and affected parties that participated in the public participation process;
- have provided the competent authority with access to all information at my disposal regarding the application, whether such information is favourable to the applicant or not; and
- am aware that a false declaration is an offence in terms of regulation 71 of GN No. R. 543.

Note: The terms of reference must be attached.

Signature of the environmental assessment practitioner:

EnviroAfrica Overberg Environmental Planning and Impact Assessment Consultants

Name of company:

Date: 2014-04-11

APPENDIX A

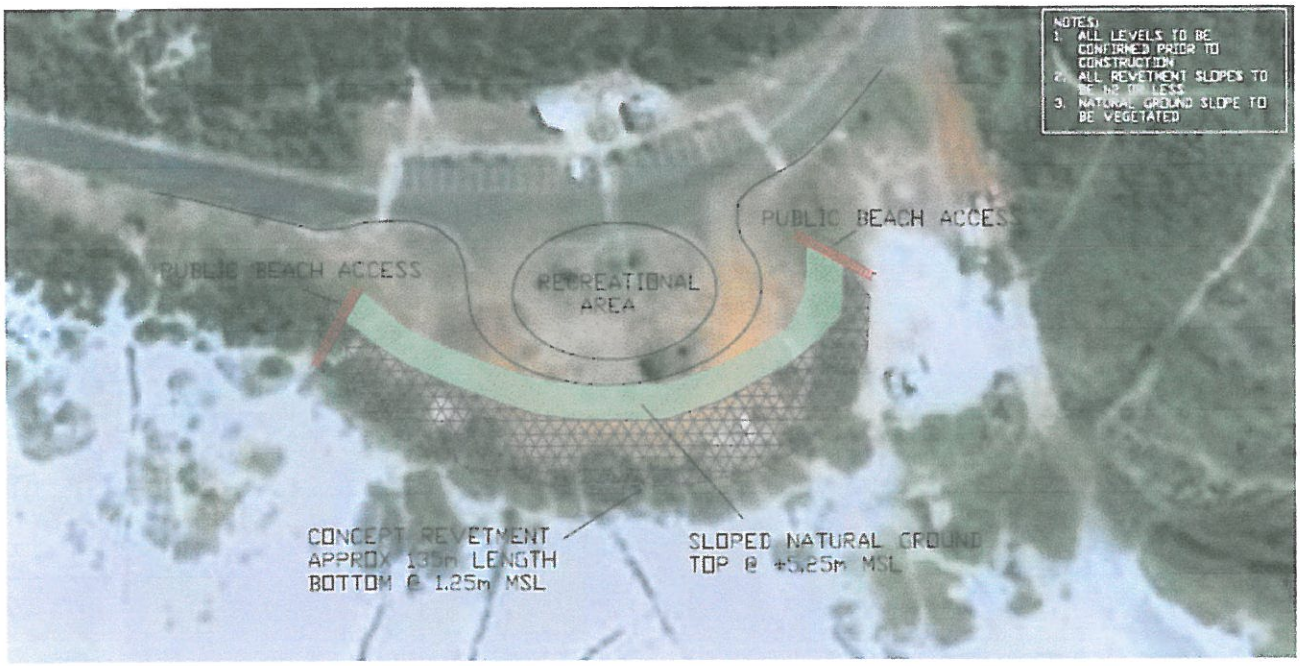
LOCALITY MAP

FIGURE 1: Map showing the location at a scale of 1:50000 (3419AD Stanford) of the existing parking area (circle) where the protection works is to be placed at Grotto Bay parking area, Hermanus. The prevailing wind directions are southeast (Oct-Mar) and northwest (Apr-Sep)

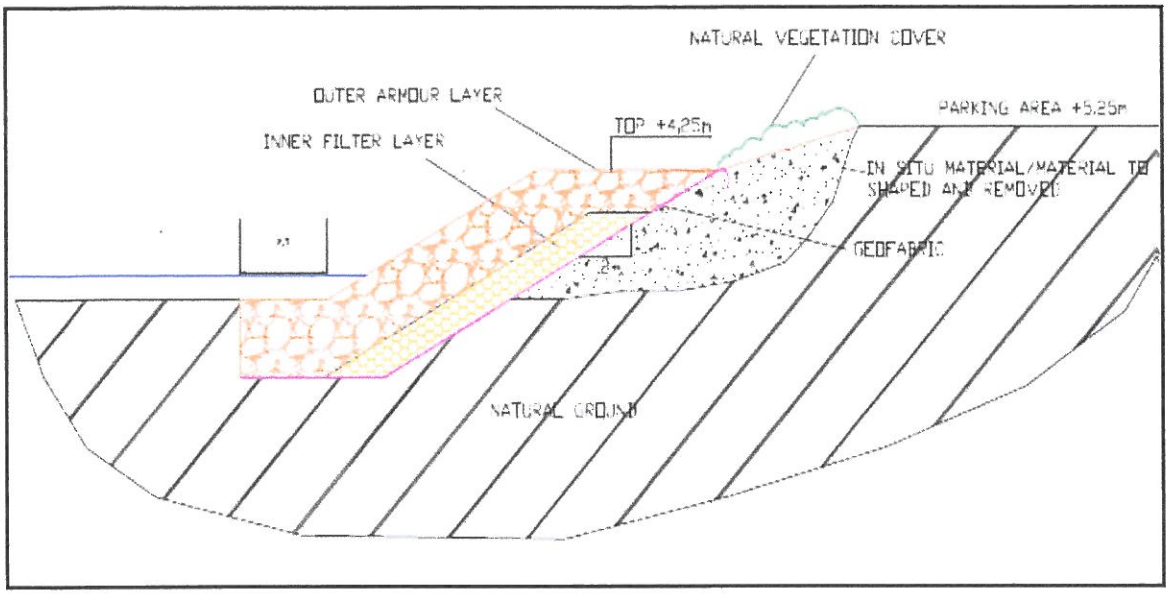
AERIAL PHOTO showing the location of the Grotto Bay parking area (marked with the arrow) where the protection works are to be implemented by means of some form of artificial stabilization of the bank of the parking area. Note the old area where the estuary breached that is now blocked by sand dunes from where sand will be sourced for the protection and to return the breach area further to the east of the parking lot.

APPENDIX B

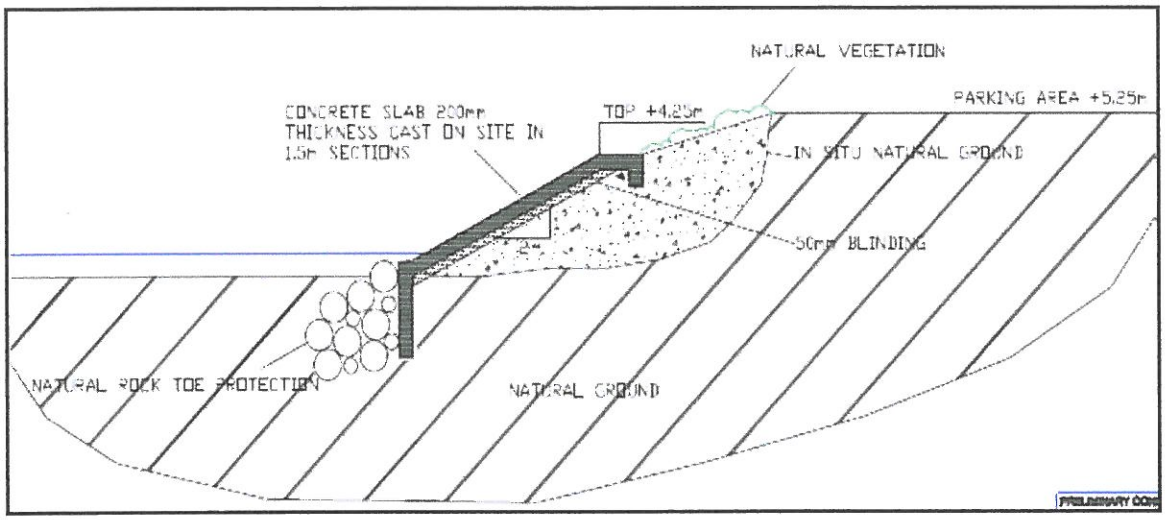
SITE PLANS



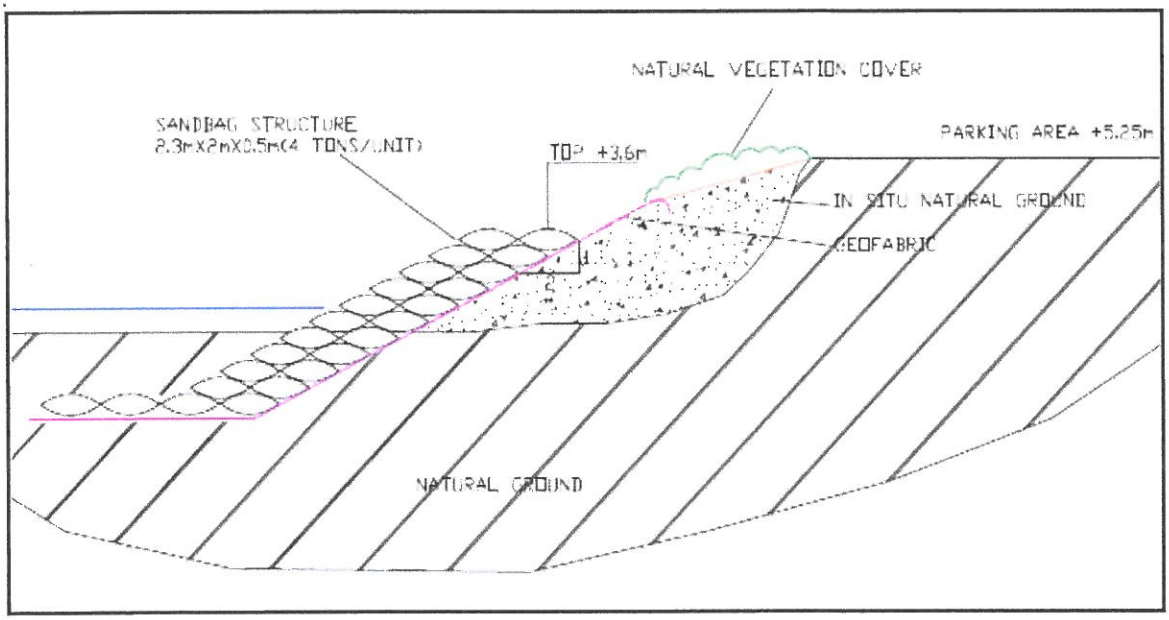
SCHEMATIC PICTURE of the proposed protection of the southern bank of the Grotto Bay parking area.



SCHEMATIC DIAGRAM of rock protection of the bank of the Grotto Bay parking area.



SCHEMATIC DIAGRAM of a concrete wall protection of the bank of the Grotto Bay parking area.



SCHEMATIC DIAGRAM of sand bag protection of the bank of the Grotto Bay parking area.

APPENDIX C

PHOTOGRAPHS

AERIAL PHOTO showing a close up of the Grotto Bay parking area as it looked before the bank damage. The area of the bank indicated (see arrows) washed away due to a combination of high estuary water levels and spring tide that forced the breaching right against the parking area embankment.

AERIAL PHOTO taken on 23 November 2012 showing the mouth breaching position opposite the Grotto parking area where the embankment of the parking area has been scoured away. Subsequent mouth breaching during the winter of 2013 has further back-eroded the fore dune in some areas to be only between 6-8 metres from the tar surface of the coastal tar road. The arrow indicates the position of the surface rocky outcrop that introduces further hydraulic phenomena that will further threaten the future of the coastal tar road.

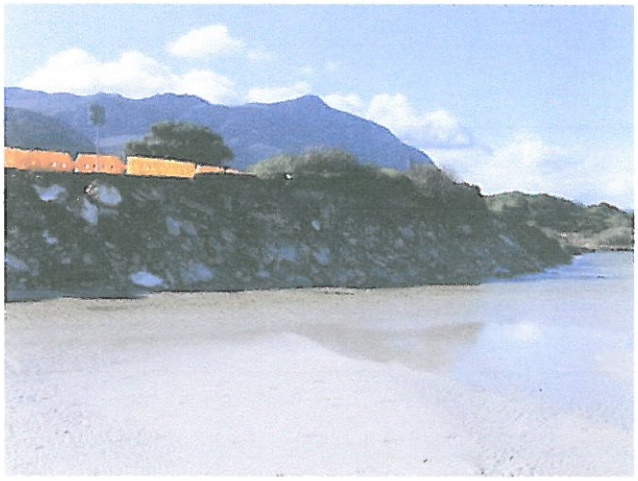


PHOTO on the left is taken from the eastern end of the parking area in an easterly direction showing the scour channel in the estuary. The white patch on the left of the photo is the same as the one in the aerial photo above to the east of the parking area. **PHOTO** on the right is taken from the beach area to the west of the parking area and to the west of the left hand photo, showing the severe scour of the southern bank of the parking area

PHOTOS on left and right showing how the fore dune has been back-eroded to within 6 to 8 metres from the costal tar road.

APPENDIX D

BIODIVERSITY OVERLAY MAP

SA 2006 National Vegetation MAP showing the position of the Grotto parking area. While there is no vegetation left on the parking area, the natural vegetation used to be Overberg Dune Strandveld which carries a conservation status of least threatened and is also not listed under Section 52 of the NEM: Biodiversity Act in any of the categories

APPENDIX E

PERMITS AND LICENSES

(NONE)

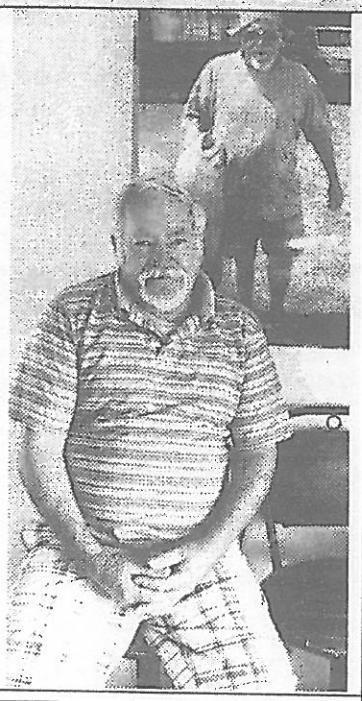
APPENDIX F

PUBLIC PARTICIPATION INFORMATION

70ste Vieringe

Kat Snyman van Pearly Beach het op Vrydag 13 September sy 70ste verjaardag gevier.
Sowat vyftig familielede en vriende het saam met hom die aand by die Pearly Beach Hengelklub se saal geniet. Kat is 'n bekende land- en boothengelaar en woon al baie jare in Pearly Beach.

Nico Opperman



Vakatures Vacancies Vakatures

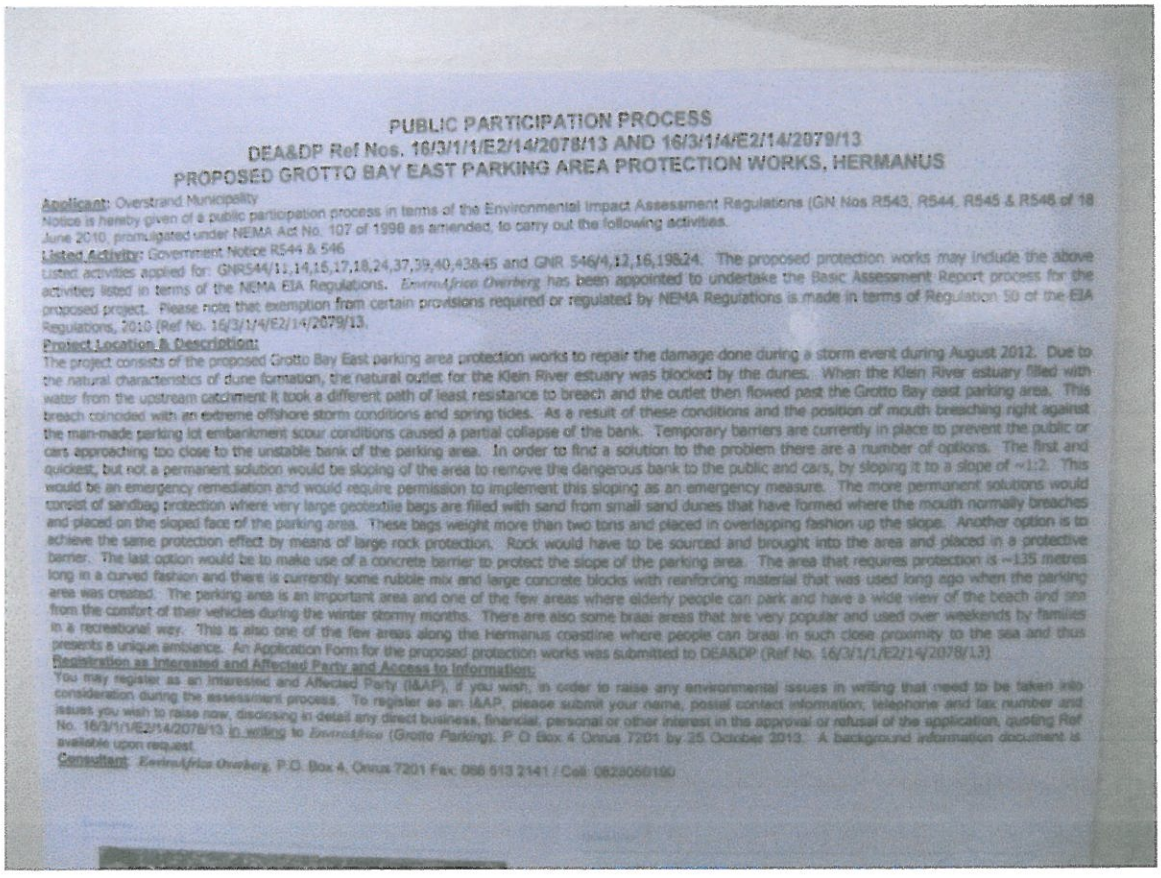
PEARLY BEACH WINKEL
Vakature bestaan vir
Kassiere/ Winkelassistent
Stuur CV na
028 381 9625.
Goeie salaris en aangename werksomstandighede.

PUBLIEKE DEELNAME PROSES
DOS Verw NoS: 16/3/1/1/E1/5/2053/13 BEOOGDE HIK PERLEMOENPLAAS UITBREIDING OPGRADERING OP GEDEELTE 2 VAN PLAAS 308 EN GEDEELTE VAN PLAAS 339, BUFFELJAGS

Aansoeker: HIK Abalone Farm (Edms) Bpk
Kennis van 'n publieke deelname proses word gegee in terme van die Wet op Nasionale Omgewingsbestuur (WNOB) (Wet No 107 van 1998) (soos gewysig) soos uiteengesit in GK Nos. R543, R544, R545 & R546 op 18 Junie 2010, om die volgende gelyste aktiwiteite uit te voer.
Gelyste Aktiwiteite: Aansoek word gedoen vir bedrywighede GKR544/9,14,15 ,18,23,33,35,36 37,38,43,45&54 en GKR546/4,12,13,14&19 in terme van die WNOB. *EnviroAfrica (Overberg)* is aangestel om die Omvangbepalings- en Omgewingsimpakbeoordelingsproses vir die projek uit te voer. Aansoek word ook gedoen vir vrystelling van sekere voorsienings vereis of gereguleer deur WNOB in terme van Regulasie 50 sowel as Regulasie 10(2)(d) van die OIB Regulasies, 2010.
Projekbeskrywing: Die projek bestaan uit die uitbreiding van die bestaande goedgekeurde plaasgebaas ten weste van die dorp Buffeljags vanaf 'n 100 ton na 'n 500 ton per jaar projeksie. Ten einde dit te vermag sal die bestaande platform driekeer vergroot word om al die groeitenke te huisves. Die bestaande see inlaat en uitlaat posisies sal behoue bly Geassosieerde infrastruktuur sal bestaan uit dromfilters, seewier groeitenks, 'n broeiarea, mandjie skoonmaak en werkswinkel areas, 'n transformator/kragopwekloestel, algemene werkswinkel, belugtingskamers vir die seewater en addisionele substasie geboue om elektriese toerusting te huisves. Personeelgeriewe sal insluit 'n verversingslokaal, kleedkamers en toiletgeriewe, kantoorgeriewe en verblyf vir 'n Bestuurder/Toesighouer. Riool sal deur 'n klein werke of deur 'n geslote tenkstelsel wat sporadies uitgepomp sal word, bedryf word. Die broeiarea sal 'n laboratorium, teelarea en hegtingsarea bevat. Elektrisiteit sal deur Eskom verskaf word. Die hele eiendom sal deur 'n 2 meter hoë hakiesdraad heining beskerm word met gepaardgaande infrarooi-, brand- en toegangbeheer alarms, asook geslote baan televisiekameras. 'n Huis word voorsien vir personeel wat na-ure toesig hou en die biologiese en fisiese bedryf van die plaas beheer. Die totale area wat benut word sal ~14.25 hektaar beslaan met die infrastruktuur van die plaas. n Aansoekvorm vir die beoogde projek is ingedien by Dept Omgewingsake (Verw Nr 16/3/1/1/E1/5/2053/13).
Registrasie as Belanghebbende Party en toegang tot Inligting: Indien u geskrewe kommentaar op die aansoek wil lewer, registreer asb. as Belanghebbende Party deur u naam, posadres, telefoon- en faksnommers en die kwessies wat u wil opper, asook enige direkte betrokkenheid, finansieël, persoonlik of ander belang in die goedkeur of afkeur van die aansoek skriftelik te voorsien aan *EnviroAfrica* (*HIK Abalone*), Posbus 4 Onrus 7201 of Faks: 0865132141 teen 25 Oktober 2013 Meld Verw Nr. 16/3/1/1/E1/5/2053/13. 'n Omvangbepalingsverslag is beskikbaar op aanvraag.
Konsultant: *EnviroAfrica (Overberg)*, Posbus 4 Onrus 7201 Faks: 0865132141 / Sel: 082 376 5544.

PUBLIEKE DEELNAME PROSES
DOS Verw Nos: 16/3/1/1/E2/14/2078/13 en 16/3/1/4/E2/14/2079/13 BEOOGDE GROTTOBAAI-OOS PARKEERAREA BESKERMINGSWERKE, HERMANUS

Aansoeker: Overstrand Munisipaliteit
Kennis van 'n publieke deelname proses word gegee in terme van die Wet op Nasionale Omgewingsbestuur (WNOB) (Wet No 107 van 1998) (soos gewysig) soos uiteengesit in GK Nos. R543, R544, R545 & R546 op 18 Junie 2010, om die volgende gelyste aktiwiteite uit te voer.
Gelyste Aktiwiteite: Aansoek word gedoen vir bedrywighede GKR544/11,14,16,17,18,24,37,39,40,43&45 en GKR546/4 12,16 19&24 in terme van die WNOB. *EnviroAfrica (Overberg)* is aangestel om die Omvangbepalings- en Omgewingsimpakbeoordelingsproses vir die projek uit te voer. Aansoek word ook gedoen vir vrystelling van sekere voorsienings vereis of gereguleer deur WNOB in terme van Regulasie 50 sowel as Regulasie 10(2)(d) van die OIB Regulasies, 2010 (Verw. No. 16/3/1/4/E2/14/2079/13).
Projekbeskrywing: Die projek bestaan uit die Grottobaai-Oos parkeerarea beskermingswerke om die skade berokken gedurende die Augustus 2012 getymeer en seetoestande aan die wegskuur van die parkeerwal te herstel. Tydelike strukture is tans in posisie om die publiek en motors weg te hou van die onstabiele bank van die parkeerarea. 'n Tydelike noodweer sal wees om die bank teen 'n helling van ~1:2 te verander, maar dit sal alleenlik tydelike verligting bring en 'n spesiale aansoek sal daarvoor nodig wees. Meer permanente beskerming sal bestaan deur die wal te hervorm en te stabiliseer met of groot sandsakke, gevul met seesand van die klein duine wat op die ou breuk van die Kleinrivierrmonding gevorm het, of deur groot rotse te plaas of deur 'n betonmuur te bou. Rots sal van buite die area ingebring moet word. Die area wat beskerm moet word is ~135 meter in lengte in 'n boogformasie. Hierdie is een van die min plekke reg teen die Hermanus kuslyn waar mense kan braai en ontspan en lewer 'n unieke area. n Aansoekvorm vir d beoogde projek is ingedien by Dept Omgewingsake (Verw Nr. 16/3/1/1/E2/14/2078/13).
Registrasie as Belanghebbende Party en toegang tot Inligting: Indien u geskrewe kommentaar op die aansoek wil lewer, registreer asb. as Belanghebbende Party deur u naam, posadres, telefoon- en faksnommers en die kwessies wat u wil opper, asook enige direkte betrokkenheid, finansieël, persoonlik of ander belang in die goedkeur of afkeur van die aansoek skriftelik te voorsien aan *EnviroAfrica* (*Grotto Parkering*), Posbus 4 Onrus 7201 of Faks: 0865132141 teen 25 Oktober 2013 Meld Verw Nr. 16/3/1/1/E2/14/2078/13. 'n Omvangbepalingsverslag is beskikbaar op aanvraag.
Konsultant: *EnviroAfrica (Overberg)*, Posbus 4 Onrus 7201 Faks: 0865132141 / Sel: 082 376 5544



PUBLIC PARTICIPATION PROCESS
DEA&DP Ref Nos. 16/3/1/1/E2/14/2078/13 AND 16/3/1/4/E2/14/2079/13
PROPOSED GROTTO BAY EAST PARKING AREA PROTECTION WORKS, HERMANUS

Applicant: Overstrand Municipality
Notice is hereby given of a public participation process in terms of the Environmental Impact Assessment Regulations (GN Nos R543, R544, R545 & R546 of 18 June 2010, promulgated under NEMA Act No. 107 of 1998 as amended, to carry out the following activities.

Listed Activity: Government Notice R544 & 546
Listed activities applied for: GNR544/11,14,16,17,18,24,37,39,40,43&45 and GNR 546/4,12,16,19&24. The proposed protection works may include the above activities listed in terms of the NEMA EIA Regulations. *EnviroAfrica Overberg* has been appointed to undertake the Basic Assessment Report process for the proposed project. Please note that exemption from certain provisions required or regulated by NEMA Regulations is made in terms of Regulation 50 of the EIA Regulations, 2010 (Ref No. 16/3/1/4/E2/14/2079/13.

Project Location & Description:
The project consists of the proposed Grotto Bay East parking area protection works to repair the damage done during a storm event during August 2012. Due to the natural characteristics of dune formation, the natural outlet for the Klein River estuary was blocked by the dunes. When the Klein River estuary filled with water from the upstream catchment it took a different path of least resistance to breach and the outlet then flowed past the Grotto Bay east parking area. This breach coincided with an extreme offshore storm conditions and spring tides. As a result of these conditions and the position of mouth breaching right against the man-made parking lot embankment scour conditions caused a partial collapse of the bank. Temporary barriers are currently in place to prevent the public or cars approaching too close to the unstable bank of the parking area. In order to find a solution to the problem there are a number of options. The first and quickest, but not a permanent solution would be sloping of the area to remove the dangerous bank to the public and cars, by sloping it to a slope of ~1:2. This would be an emergency remediation and would require permission to implement this sloping as an emergency measure. The more permanent solutions would consist of sandbag protection where very large geotextile bags are filled with sand from small sand dunes that have formed where the mouth normally breaches and placed on the sloped face of the parking area. These bags weight more than two tons and placed in overlapping fashion up the slope. Another option is to achieve the same protection effect by means of large rock protection. Rock would have to be sourced and brought into the area and placed in a protective barrier. The last option would be to make use of a concrete barrier to protect the slope of the parking area. The area that requires protection is ~135 metres long in a curved fashion and there is currently some rubble mix and large concrete blocks with reinforcing material that was used long ago when the parking area was created. The parking area is an important area and one of the few areas where elderly people can park and have a wide view of the beach and sea from the comfort of their vehicles during the winter stormy months. There are also some braai areas that are very popular and used over weekends by families in a recreational way. This is also one of the few areas along the Hermanus coastline where people can braai in such close proximity to the sea and thus presents a unique ambience. An Application Form for the proposed protection works was submitted to DEA&DP (Ref No. 16/3/1/1/E2/14/2078/13)

Registration as Interested and Affected Party and Access to Information:
You may register as an Interested and Affected Party (I&AP), if you wish, in order to raise any environmental issues in writing that need to be taken into consideration during the assessment process. To register as an I&AP, please submit your name, postal contact information; telephone and fax number and issues you wish to raise now, disclosing in detail any direct business, financial, personal or other interest in the approval or refusal of the application, quoting Ref No. 16/3/1/1/E2/14/2078/13 in writing to *EnviroAfrica (Grotto Parking)*, P O Box 4 Onrus 7201 by 25 October 2013. A background information document is available upon request.

Consultant: *EnviroAfrica Overberg*, P.O. Box 4, Onrus 7201 Fax: 086 513 2141 / Cell: 0829050180

On-site advert and text displayed at the site of the proposed protection works

PUBLIC PARTICIPATION PROCESS
DEA&DP Ref Nos. 16/3/1/1/E2/14/2078/13 AND 16/3/1/4/E2/14/2079/13
PROPOSED GROTTO BAY EAST PARKING AREA PROTECTION WORKS, HERMANUS

Applicant: Overstrand Municipality

Notice is hereby given of a public participation process in terms of the Environmental Impact Assessment Regulations (GN Nos R543, R544, R545 & R546 of 18 June 2010, promulgated under NEMA Act No. 107 of 1998 as amended, to carry out the following activities.

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You may register as an Interested and Affected Party (I&AP), if you wish, in order to raise any environmental issues in writing that need to be taken into consideration during the assessment process. To register as an I&AP, please submit your name, postal contact information, telephone and fax number and issues you wish to raise now, disclosing in detail any direct business, financial, personal or other interest in the approval or refusal of the application, quoting Ref No. 16/3/1/1/E2/14/2078/13 in writing to *EnviroAfrica* (*Grotto Parking*), P O Box 4 Onrus 7201 by 25 October 2013. A background information document is available upon request.

Consultant: ***EnviroAfrica Overberg,*** P.O. Box 4, Onrus 7201 Fax: 086 513 2141 / Cell: 0828050190

EnviroAfrica

Environmental Planning and Impact Assessment Consultants
Omgewingsbeplanning en Impakbeoordeling Konsultante

4 October 2013

This is to certify that I, Charel Bruwer (ID 4403295091088) have posted the Background Information Document for the proposed rehabilitation of the Grotto Beach parking area (Erf 4771, Hermanus) to the list of persons and organisations that have jurisdiction in the area under concern, at the Hermanus Post office.

Mr Sandals Home Owners				PO Box 36233	GLOSDERRY	7702
HJC&S	Bellingham&Turner		c/o Harmonie Property Services	PO Box 669	HERMANUS	7200
B	Lomba	2 Sandals	241 Eleventh Street		VOELKLIP	7200
SD&NG	Harding	10980 Steenberg Estate	Tokai Road		TOKAI	7945
MCR&I	Douree&Bezuidenhout			PO Box 2034	HERMANUS	7200
AJ	Dodds	9 Wolfe Street	Chelsea		WYNBERG	7800
Stehan	Grobler Trust			PO Box 6425	UNIEDAL	7612
HH&LE	Versfeld&Murray	18 Sunnybrae Crescent			WESTCLIFF	7200
The Choice Family Trust		Prestige House	2nd Floor Beach Road		MAITLAND	7405
CL	Bruyns	Unit 70	De Zalze Golf Estate		STELLENBOSCH	7600
Mosselberg	On Grotto Beach (Pty) Ltd	Suite 145		Private Bag X16	HERMANUS	7200
DAH&R	Cleak & Napier		16 Porter Avenue		MERLROSE NORTH	2196
Crowborough	Trust	Suite 152		Private Bag X15	HERMANUS	7200
JM	Mulcahy	Carrablach House	Portsalon		COUNTY DONEGAL	9999
Linistep	(Pty) Ltd			PO Box 95079	WATERKLOOF	0145
LL	Colussi			PO Box 1278	CAPE TOWN	8000
Bishopscourt	One Two Nine (Pty) Ltd			PO Box 65134	BENMORE	2010

P O Box 4
ONRUS RIVER 7201
Tel: (028) 3162888
Fax: 0865132141
Cell: 0828050190

CK 2007043835/23
VAT No 4380237091

Charel Bruwer
Jerry Avis
Charel Bruwer Jnr
Bernard de Witt

HERMANUS 7200
04 OCT 2013
3

Overstrand	Municipality			PO Box 20	HERMANUS	7200
Rags	201 Inv (Pty) Ltd		262 Tenth Street		VOELKLIP	7200
AY&PA	Tansley & Menzies		6 Fourteenth Avenue		VOELKLIP	7200
CL&LA	Schonegevel & Overend		34 Fairway Avenue		LINKSFIELD NORTH	2192
Werner	Zybrands Consultus (Pty) Ltd			Posbus 325	HERMANUS	7200
Louis	& Nella De Kock Trust			Posbus 77	ORCHARD	6870
Thomas	Walmsley Dales Will Trust	c/o K White & Co		PO Box 30526	TOKAI	7966
AJ	Lord		2A Maclear Road		BISHOPSCOURT	7700
PG	Krafft			Posbus 306	HERMANUS	7200
EM	Neetling			PO Box 1517	SUIDER PAARL	7624
EC&KC	De Kock Gesinstrust		281 Ninth Street		HERMANUS	7200
Andrag	Erich Paul-Trustees	1 Greenwood		Privaat Sak X3	SCHONENBERG	7129
MJ	Reyneke		No 142 De Zalze Golf Estate		STELLENBOSCH	7600
L	Pienaar	p/a G Kloppers	Tiendestraat 284		HERMANUS	7200
TP	Gilmour			Posbus 20	STELLENBOSCH	7599
Broadwater	Trust			Posbus 354	DOUGLAS	8730
MM&CJ	Gellatly	Grandiceps 12	Paradyskloof		STELLENBOSCH	7600
Columbia	Falls Properties 27 (Pty) Ltd			Posbus 394	GROENKLOOF	0027
Lord	Trust		2A Maclear Road		BISHOPSCOURT	7700
Erf	4094 CC			PO Box 53201	KENILWORTH	7745
DM	Binneman			Posbus 235	KOELENHOF	7605
Biloxi	Foundation		289 Tenth Street		VOELKLIP	7200
KJ	Reid		113 Kloof Road		BANTRY BAY	8000
Francesco	Rivera Inv Holdings (Pty) Ltd			PO Box 857	WENDYWOOD	2144
The	Confide Invest Trust	c/o Mr M Simpson		PO Box 2	ELGIN	7180
The Municipal Manager		Overstrand Municipality		P O Box 20	HERMANUS	7200
The	Director	Heritage Western Cape		Private Bag X9067	CAPE TOWN	8000
The	Chief Director	Dept of Water Affairs		Private Bag X16	SANLAMHOF	7532
R	Smart	Cape Nature		Private Bag X5014	STELLENBOSCH	7599
Clr K	Brice	Overstrand Municipality		P O Box 20	HERMANUS	7200
Cllr P	Scholtz	Overstrand Municipality		P O Box 20	HERMANUS	7200

The	Chairman	Hermanus Ratepayers Ass		P O Box 134	HERMANUS	7200
Aesthetics	Committee	c/o Mr J Simpson		P O Box 20	HERMANUS	7200
Chief Executive Officer		BOCMA		P/Bag X3055	WORCESTER	6849

Charel Bruwer

HERMANUS 7200
04 OCT 2013
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LIST OF REGISTERED INTERESTED AND AFFECTED PARTIES GROTTO BAY PARKING REHABILITATION

A	Steyn	23 Stepping Stones Road			EVERSDAL	7550
B	Ratcliffe	22 The Avenue	Silverhurst Estate		CONSTANTIA	7806
HP	Plum	262, 10th Street			HERMANUS	7200
LL	Colussi			PO Box 1278	CAPE TOWN	8000
L	Murray	18 Sunnybrae Crescent			WESTCLIFF	7200
K&B	Johnson			P O Box 957	STANFORD	7210
E	Ivey			P O Box 235	STANFORD	7210
HLPOA		c/o E Ivey		P O Box 235	STANFORD	7210
Fernkloof Advisory Board		c/o D Heard	12 Sepia Avenue		VERMONT	7201
N	McCarthy	15 Clarewood	1 Annadale Road		DIEP RIVER	7800
P	Aplon	Env Man Section	Overstrand Municipality	P O Box 20	HERMANUS	7200
The	Chief Director	Dept of Water Affairs		Private Bag X16	SANLAMHOF	7532
R	Smart	Cape Nature		Private Bag X5014	STELLENBOSCH	7599
Chief Executive Officer		BOCMA		P/Bag X3055	WORCESTER	6849
J	Martin			P O Box 73	STANFORD	7210
Whale Coast Conservation		c/o R Fryer		P O Box 1949	HERMANUS	7200
G	Lombardi			P O Box 2115	HERMANUS	7200
A	Van Hoogstraten			P O Box 1566	HERMANUS	7200

RECORD OF THE PUBLIC PARTICIPATION PROCESS FOLLOWED IN THE CASE OF THE PROPOSED REHABILITATION OF THE GROTTO PARKING AREA, HERMANUS.

The public participation process that was followed in the abovementioned instance was designed from the onset driven by the DEA&DP NEMA EIA Guideline on Public Participation and was initiated by the following series of events, which occurred more or less simultaneously:

- social profiling as described by O'Connor (1977) was employed to determine the key characteristics of potential Interested and Affected Parties as well as the organs of state that have an interest in the proposed rehabilitation of the Grotto parking area as mentioned elsewhere in the report, as starting point for identifying potential stakeholders;
- brainstorming sessions were held with some authorities to further identify key stakeholders who may have an interest in or be affected by the proposal;
- the proposed rehabilitation was advertised in the "Hermanus Times " of 3 October 2013 as well as the "Gansbaai Courant" of 3 October 2013, giving details of how to engage in the process, as well as the deadline for comment, etc (see attached in Appendix F;
- at the same time an on-site advert was fixed at a conspicuous place of the site mentioned in the application (see attached in Appendix F;
- a Background Information Document (BID) was compiled that contained enough detail that could be made available to potential I&APs, either by direct posting or upon request in response to advertisements, etc., to allow them access to information to make informed inputs to the environmental impact assessment process (see attached in Appendix F;
- the BID also requested initial recipients to bring the impact assessment process for the proposed project to the attention of anyone who they considered to have an interest in the project;
- the site advert, the advertisement in the newspaper and BID gave details of the application, which is subjected to public participation as well as stated:
    - that the application had been submitted to the competent authority in terms of the NEMA Regulations;
    - that Basic Assessment procedures were being applied to the application for environmental authorisation;
    - stating the nature and location of the activity to which the application relates;
    - where further information on the application and proposed activity could be obtained;
    - and the manner in which, as well as the person, to whom representations in respect of the application could be made, giving contact details;
    - informing potential Interested and Affected Parties about the process requirements for formal registration as I&AP who will be further involved in the assessment process;
    - as well as the deadline for registration and comment.
- the documents were sent to the municipal councillor of the ward in which the site is situated (see Initial I&APs list attached in Appendix F);

- the documents were sent to the municipality which has jurisdiction in the area;
- the documents were sent to organs of state having jurisdiction in respect of any aspect of the activity (see Initial I&APs list attached in Appendix F);
- municipalities and other organs of state were notified and given an opportunity to comment in writing;
- an Issues Report was compiled from issues raised, as well as written comments received (see Comments and Responses Report in Appendix F);
- a register of I&APs was opened and all correspondence received was responded to(see registered I&APs list attached in Appendix F);
- a draft Basic Assessment Report was made available to registered I&APs in the Stanford and Hermanus Libraries and on the Overstrand municipal website, as well as to organs of state which has jurisdiction in respect of any aspect of the activity for the NEMA specified period of time , after it was made available to DEA&DP;
- a final copy of the BAR will be made available to all registered I&APs

COMMENTS AND RESPONSES REPORT

INTRODUCTION

Of all the efforts that went into conducting a widely participative public participation process (51 initially identified individuals and organizations in the area) there were subsequently only 15 that responded to the request to formally registered as Interested and Affected Parties (I&APs) within the advertised deadline. Subsequently two more made late submissions. State departments such as Water Affairs, Cape Nature and BOCMA are automatically included as registered I&APs

TABLE 1: Register of Interested and Affected parties that were registered during the basic assessment process for the proposed rehabilitation of the Grotto Bay parking area, Hermanus.

A	Steyn	23 Stepping Stones Road			EVERSDAL	7550
B	Ratcliffe	22 The Avenue	Silverhurst Estate		CONSTANTIA	7806
HP	Plum	262, 10th Street			HERMANUS	7200
LL	Colussi			PO Box 1278	CAPE TOWN	8000
L	Murray	18 Sunnybrae Crescent			WESTCLIFF	7200
K&B	Johnson			P O Box 957	STANFORD	7210
E	Ivey			P O Box 235	STANFORD	7210
HLPOA		c/o E Ivey		P O Box 235	STANFORD	7210
Fernkloof Advisory Board		c/o D Heard	12 Sepia Avenue		VERMONT	7201
N	McCarthy	15 Clarewood	1 Annandale Road		DIEP RIVER	7800
P	Aplon	Env Man Section	Overstrand Municipality	P O Box 20	HERMANUS	7200
The	Chief Director	Dept of Water Affairs		P/Bag X16	SANLAMHOF	7532

R	Smart	Cape Nature		P/Bag X5014	STELLENBOSCH	7599
Chief Executive Officer		BOCMA		P/Bag X3055	WORCESTER	6849
WCC		c/o R Fryer		P O Box 1949	HERMANUS	7200
G	Lombardi			P O Box 2115	HERMANUS	7200
A	Van Hoogstraten			P O Box 1566	HERMANUS	7200
J	Martin			P O Box 73	STANFORD	7210

ISSUES SECTION

The following issues, concerns and potential impacts were compiled from written submissions and discussions. All correspondence received and the responses on issues raised thereupon are attached.

- What is the CSIR's opinion on this application and KREF's opinion on this application.
- An updated aerial view of the Schematic Picture of the proposed protection works overlaying the latest Google Earth view image of the area as it is now after the scouring away of the parking area edge. Of particular interest here would be to see the proposed extent of the works compared with the present parking area edge.
- A side profile of the proposed works which also indicates the position of the eroded bank and information on the expected durability of the works. (e.g. The pros and cons of using sand bags and the possibility of the bag deterioration over time)
- A major concern, should the works proceed, would be the aesthetic look of the works. Any man-made structure should harmonise with the natural landscape and not detract from it. The information presented so far provides no landscape perspective.
- My property adjoins the Kleinrivier estuary and therefore any development or work which impacts on the mouth of the estuary will have a possible impact on the general health of the estuary in which I have a direct interest with specific concern as to the breaching of the mouth, as well as the possible negative impact on the flora and fauna.
- I reject the application for the following reasons: The mouth of the Kleinrivier estuary is located close to the above proposed work and therefore the proposed work will have a direct impact on the breaching of the mouth. A Mouth Breaching Protocol, approved by DEA&DP, is in place from 2010 for five years i.e. 2016, and no work in close proximity to the mouth should be undertaken during this moratorium.
- The high probability of long term affect of the proposed development on the coastal vegetation and fragile intercoastal flora and fauna in this area should be of prime concern. Insufficient knowledge is available as to the effect of a heavily re-inforced barrier on the natural coastline.
- The same consideration is required when the removal long-term survey must be taken to ensure the impact does not have a negative affect on the natural course and good health of the estuary.

- The dumping of the rubble of the old Birkenhead Hotel on the beach below the high water mark in the 1980's was an ill conceived and inappropriate action by the then municipality
- In my opinion any attempt to stabilise and protect this area would be a gross waste of public funds and severely interfere with the natural breachings of the estuary
- Your reference to natural breachings is clearly erroneous as all the breachings to which you refer were artificial manmade openings. I would like to be afforded an opportunity to demonstrate to you and any other interested parties, where natural breachings took place in the past.
- The idea of taking sand off the beach is contrarary to all recent ecological protocol and I find it hard to believe that such an idea has been suggested.
- There is ample picknicking facilities at Piet se Bos close to the ocean.
- This public participation process is already grossly flawed in that the newspaper advert in the Hermanus Times of 3rd October is small and virtually illegible and the mailing list of the above mentioned document excludes the Fernkloof Advisory Board (the Fenkloof Nature is adjacent to the site) and all the riparian property owners on the Hermanus Lagoon, including the Hermanus Lagoon Property Owners Association. It also excludes Mr Pierre de Villiers, Cape Nature's expert on estuaries under its jurisdiction. The mailing list does include a few Voëlklip property owners, most of whom are not permanent residents and are unlikely to get the document on time so are unlikely to respond by due date
- Cape Proteas & Ericas(Pty) Ltd owns the property adjoining the Kleinriver Estuary and as such will be impacted by any work undertaken close to the mouth.
- I approve of the 1st proposal and schematic diagram of rock protection of the Grotto Bay parking area.
- The HLPOA represents the land owners surrounding the Klein Rivier Estuary and has a direct interest in any matters pertaining to the well being, maintenance, and management of the estuary and its environs. The HLPOA is an active participant in the current management process for the estuary breeching protocol and its implementation, and any proposed intervention or activities anticipated within the zone of interface between the lagoon and the sea is of vital concern to all its members.
- An initial comment that we would like to put forward is that currently there is a breaching policy for the estuary mouth in place which comes up for review in 2016. In respect of the current breaching policy the mouth has breached naturally in 2012 and 2013, and in both instances on the western side of the estuary mouth. The natural scouring process has resulted in the man-made embankment of the car park in question being eroded away as the river mouth re-establishes itself along one of its older historical natural routes. It is the opinion of this committee that intervention to preserve the car park from further erosion as proposed in the application is contrary to the intentions of the current breaching policy for the estuary and that in due course it may be considered preferable to remove and relocate the car park and braai areas to an area outside of the littoral active zone of the estuary mouth. In which case the proposed activity should be proposed at this stage, and form part of the review process that is anticipated in 2016.
- For similar reasons this committee opposes the proposal to remove sand from the dunes separating the estuary from the sea for purposes of providing material for the sand bag proposal. It again interferes with the natural situation that should be allowed to remain until the review process in 2016.

- I am delighted to be advised that there is intention to effect protection to the bank of the Grotto Bay area for parking where it abuts the Klein River. I would endorse the use of Rock Protection as illustrated in your schematic diagram.
- I am not in favour of the construction of the parking facility as proposed in the diagrams attached to the letter. The proposed area is below the high water mark and the former man-made parking lot should never have been constructed there. To once again build up an artificial wall is totally against nature and very costly. It is, in my opinion, damaging to the environment and an unnecessary waste of tax payer's money.
- Over the past few years the Klein River has been artificially opened to the sea on the Stanford side of the beach. This is, however, not the natural place for the mouth of the estuary. I believe the beach and estuary should be left to nature.
-
- This office, in principle, has no objection to the proposed protection works on Erf 4771, subject to the following conditions:
  - All relevant sections and regulations of the National Water Act,1998 (Act 36 of 1998) regarding water use must be adhered to,
  - Storm water management must be addressed both in terms of flooding and pollution potential.
  - No permanent structures may be constructed within the 1:100 year flood line of any watercourse (seasonal or permanent river, stream, etc.) or alternatively, more than 100 metres from the edge of a water resource, whichever is further.
  - The waste generated by the facility needs to be managed of in terms of the National Environmental Management Waste Act, 2008 (Act 59 Of 2008) on the property and the final disposal of the waste at a licensed solid waste disposal site.
  - The minimizing of waste must be promoted in the area and alternative methods for waste management must be investigated.
- I have concerns regarding the impact on the natural marine environment should be considered. The high probability of long term affect of the proposed development on the coastal vegetation and fragile intracoastal flora and fauna in this area should be of prime concern. Insufficient knowledge is available as to the effect of a heavily-re-inforced barrier on the natural coastline.

All correspondence and responses thereto are attached for information.

Rec'd 22/10

Office of the Director:
Infrastructure & Planning
Environmental Management

OVERSTRAND
ENVIRONMENTAL SECTION

Kantoor van die Direkteur:
Infrastruktuur & Beplanning
Omgewingsbestuur

OVERSTRAND

Enviro Africa (Grotto parking)
DEA&DP ref no: 16/3/1/1/E2/14/2078/13

I hereby submit my contact details to be registered as an Interested & Affected Party for above mentioned development:

Penelope Aplon
Overstrand Municipality
Environmental Management Section
PO Box 20
Hermanus
7200

Tel: 028 316 3724
Fax: 028 394 9841

Kind regards,
Penelope Aplon

(1a)

EnviroAfrica
Environmental Planning and Impact Assessment Consultants
Omgewingsbeplanning en Impakbeoordeling Konsultante

14 April 2014

Ms P Aplon
Environmental Management Section
Overstrand Municipality
P O Box 20
HERMANUS
7200

Dear Ms Aplon

16/3/1/1/E2/15/2037/14: PROPOSED GROTTO BAY EAST PARKING AREA PROTECTION WORKS ON ERF 4771, HERMANUS

Your request to be registered as I&AP for the abovementioned project on 22 October 2013 is confirmed. Also note that DEA&DP inadvertently closed the file for administrative purposes, but that it was re-opened and now has a new application number (16/3/1/1/E2/15/2037/14) and new exemption application number (16/3/1/4/E2/15/2038/14).

We note that you have not raised any issues concerns and impacts that you wished to be addressed in the Basic Assessment Report (BAR). It is essential that you raise these issues at the very onset of the impact assessment process, in order for them to be addressed as early as possible in the process, otherwise it leads to unacceptable delays in the completion of the impact assessment process.

The BAR is now available in the Stanford and Hermanus libraries for your information and written comment, if any. You may access the BAR at the following link: https://sites.google.com/site/enviroafricaeia/grotto-bay-parking-protection-works

The deadline for written comments, if any, is close of work on 30 May 2014 and must be faxed (0865132141) or sent to *EnviroAfrica* (*Grotto Parking*), P O Box 4, ONRUS 7201, quoting reference number 16/3/1/1/E2/15/2037/14 in all correspondence.

Yours sincerely

Copy

Charel Bruwer Snr

P O Box 4
ONRUS RIVER 7201
Tel: (028) 3162888
Fax: 0865132141
Cell: 0828050190

CK 2007043835/23
VAT No 4380237091

Charel Bruwer Snr
Charel Bruwer Jnr
Bernard de Witt

(2) R'ceid 23/10

Registration as I&AP: PROPOSED GROTTO BAY EAST PARKING PROTECTION WORKS, ERF 4771, HERMANUS (Ref.: 16/3/1/1/E2/14/2078/13).

Date: 23 October 2013

EnviroAfrica Overberg **(Fax : 086 513 2141)**
P.O. Box 4
Onrus

Dear Charel

REGISTRATION OF THE FERNKLOOF NATURE RESERVE ADVISORY BOARD (FAB) AS AN INTERESTED AND AFFECTED PARTY:

Submitted to EnviroAfrica (Onrus) by Duncan HW Heard, Chairperson, Fernkloof Advisory Board (FAB) on behalf of the Board

I refer to your notice dated 3 October 2013 in terms of the above application by the Overstrand Municipality.

The above application refers to proposed works within a portion of the Klein River estuary and the coastal zone which are important ecosystems situated adjacent to portions of the Fernkloof Nature Reserve and within the natural Buffer Zone of the Reserve.

FAB hereby register as an Interested and Affected Party in order to provide comment during the process. Please confirm our registration.

Further information that we would require to be better informed before providing comments for or against the proposal are:

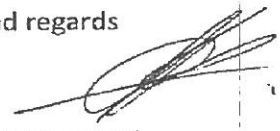
- The CSIR's opinion on this application.
- KREF's opinion on this application.
- An updated aerial view of the Schematic Picture of the proposed protection works overlaying the latest Google Earth view image of the area as it is now after the scouring away of the parking area edge. Of particular interest here would be to see the proposed extent of the works compared with the present parking area edge.
- A side profile of the proposed works which also indicates the position of the eroded bank.
- Information on the expected durability of the works (e.g. The pros and cons of using sand bags and the possibility of the bag deterioration over time)

- A major concern, should the works proceed, would be the aesthetic look of the works. Any man-made structure should harmonise with the natural landscape and not detract from it. The information presented so far provides no landscape perspective.

I would prefer that future communications from your office be sent to me by e-mail and by post. Our local postal service is unfortunately very unreliable and delays in delivery time are commonplace.

My contact details are listed below.

Kind regards



Duncan Heard
Chairperson: Fernkloof Nature Reserve Advisory Board
12 Sepia Avenue, Vermont, Onrusrivier. 7201. SOUTH AFRICA

Tel: +27(0) 28 316 3386 | **Cell:** +27(0) 82 495 3943 | **Fax:** +27(0) 86513 4462 |

Email: duncanheard@telkomsa.net

(2a)

EnviroAfrica

Environmental Planning and Impact Assessment Consultants
Omgewingsbeplanning en Impakbeoordeling Konsultante

14 April 2014

The Chairman: Fernkloof Advisory Board
c/o Mr D Heard
12 Sepia Avenue
VERMONT
7201

Dear Mr Heard

16/3/1/1/E2/15/2037/14: PROPOSED GROTTO BAY EAST PARKING AREA PROTECTION WORKS ON ERF 4771, HERMANUS

Your request for FAB to be registered as I&AP for the abovementioned project on 23 October 2013 is confirmed. Also note that DEA&DP inadvertently closed the file for administrative purposes, but that it was re-opened and now has a new application number (16/3/1/1/E2/15/2037/14) and new exemption application number (16/3/1/4/E2/15/2038/14).

With regard to the information that you require we wish to respond as follows. We wish to point out that a considerable amount of work on the breaching of the Kleinriviersvlei mouth has been done over the years and various breaching strategies have been implemented and monitored. Reports in this regard that address the concerns that you raised are included in the Basic Assessment Report which is now available for your information and written comment, if any. The BAR is available in the Stanford and Hermanus Libraries and you may also access the BAR at the following link: https://sites.google.com/site/enviroafricaeia/grotto-bay-parking-protection-works

The CSIR and KREF opinions are contained in the reports mentionedand noteworthy is that the CSIR specialists support mouth breaching at a low point more to the south –east of the mouth. The BAR also contains aerial photographs that can be used for comparative purposes to relate the proposed extent of the works. Side profiles of the alternatives are provided as well as photographs of other areas where the rehabilitation has been implemented. The sandbags have been extensively used on Umhlanga beachfront and have been in place since 2009 and is still in excellent condition and provides an added dimension of spectator facilities and enjoyment to that beachfront.

The deadline for written comments, if any, is close of work on 30 May 2014 and must be faxed (0865132141) or sent to *EnviroAfrica* (*Grotto Parking*), P O Box 4, ONRUS 7201, quoting reference number 16/3/1/1/E2/15/2037/14 in all correspondence.

Yours sincerely

Copy

Charel Bruwer Snr

P O Box 4
ONRUS RIVER 7201
Tel: (028) 3162888
Fax: 0865132141
Cell: 0828050190

CK 2007043835/23
VAT No 4380237091

Charel Bruwer Snr
Charel Bruwer Jnr
Bernard de Witt

(3) Rec'd 23/10

Adrian Steyn
Roskeen Farm
R43 between Hermanus and Stanford
c/o 23 Stepping Stones
Eversdal
7550

Mr C Bruwer
EnviroAfrica (Grotto Parking)
P O Box 4
Onrus
7201

FAX TO : 0865132141

23 October 2013

Dear Mr Bruwer

DEA&DP (Ref. Nos. 16/3/1/1/E2/14/2078/13 and 16/3/1/4/E2/14/2079/13

I wish to hereby register as an Interested and Affected person in the Proposed Grotto East Parking Area Protection Works, Hermanus.

My property adjoins the Kleinriver Estuary and therefore any development or work which impacts on the mouth of the Estuary will have a possible impact on the general health of the Estuary in which I have a direct interest.

My details are as follows:-

Name: Adrian Steyn
Postal Contact Information: 23 Stepping Stones Road, Eversdal, 7550
Telephone numbers: Landline 021 911 2030 (w) Cell 082 554 7676 Fax 0866 070 616
e-mail : adrian@joblaw.co.za

Interest in the approval or rejection of the application:
I am concerned as to what negative impact such proposed work will have on the Estuary, with specific concern as to the Breaching of the Mouth, as well as the possible negative impact on the flora and fauna.

I request that you keep me duly informed on any progress with regards this application.

Many thanks

Regards

Adrian Steyn

EnviroAfrica
Environmental Planning and Impact Assessment Consultants
Omgewingsbeplanning en Impakbeoordeling Konsultante

3a

14 April 2014

Mr A Steyn
c/o 23 Stepping Stones
EVERSDAL
7550

Dear Mr Steyn

16/3/1/1/E2/15/2037/14: PROPOSED GROTTO BAY EAST PARKING AREA PROTECTION WORKS ON ERF 4771, HERMANUS

Your request to be registered as I&AP for the abovementioned project on 23 October 2013 is confirmed. Also note that DEA&DP inadvertently closed the file for administrative purposes, but that it was re-opened and now has a new application number (16/3/1/1/E2/15/2037/14) and new exemption application number (16/3/1/4/E2/15/2038/14).

We wish to point out that a considerable amount of work on the breaching of the Kleinriviersvlei mouth has been done over the years and various breaching strategies have been implemented and monitored. Reports that address the concerns that you raised are included in the Basic Assessment Report which is now available for your information and written comment, if any. The BAR is available in the Stanford and Hermanus Libraries and you may also access the BAR at the following link: https://sites.google.com/site/enviroafricaeia/grotto-bay-parking-protection-works

The deadline for written comments, if any, is close of work on 30 May 2014 and must be faxed (0865132141) or sent to *EnviroAfrica* (*Grotto Parking*), P O Box 4, ONRUS 7201, quoting reference number 16/3/1/1/E2/15/2037/14 in all correspondence.

Yours sincerely

Copy

Charel Bruwer Snr

P O Box 4
ONRUS RIVER 7201
Tel: (028) 3162888
Fax: 0865132141
Cell: 0828050190

CK 2007043835/23
VAT No 4380237091

Charel Bruwer Snr
Charel Bruwer Jnr
Bernard de Witt

P O Box 235,
Stanford
7210
23 October 2013

Mr C Bruwer
EnviroAfrica(Grotto Parking)
P O Box 4
Onrus
7201

Rec'd 23/10 (4)

Dear Mr Bruwer
DEA&DP (Ref. Nos. 16/3/1/1/E2/14/2078/13 and 16/3/1/4/E2/14/2079/13

I wish to register as an Interested and Affected person in the abovenamed Proposed Grotto East Parking Area Protection Works, Hermanus and to receive all notices and communications with regard to these proposals I understand that there will be futher public participation and I look forward to being able to comment in the future.
We own land which adjoins the Kleinriver Estuary therefore our property is directly affected by the health of the Estuary. Any development or work which impacts on the mouth of the Estuary, which consequently will have a impact on the general health of the Estuary, directly affects our land. I am a member of the Hermanus Lagoon Property Owners' Association, the Kleinriviersberg Conservancy and the Klein River Estuary Forum which are associations with interest in the Kleinrivier Estuary and the Catchment area of the Kleinrivier Estuary.
My details are as follows:-

Name: Mrs E L L Ivey

Property: Waterfalls/Granton Erf 636 and erf 637/6 Dist. Caledon

Postal Contact Information: P O Box 235, Stanford 7210

Telephone numbers: Landline 0283140263 Cell 0827707320 Fax0865908638

Interest in the approval or rejection of the application:
I reject the application for the following reasons: The mouth of the Kleinriver Estuary is located close to the above proposed work and therefore the proposed work will have a direct impact on the breaching of the mouth. A Mouth Breaching Protocol, approved by DEA&DP, is in place from 2010 for five years i.e. 2016, and no work in close proximity to the mouth should be undertaken during this moratorium.
Further considerations of the impact on the natural marine environment should be considered. The high probability of long term affect of the proposed development on the coastal vegetation and fragile intracoastal flora and fauna in this area should be of prime concern. Insufficient knowledge is available as to the effect of a heavily re-inforced barrier on the natural coastline. The same consideration is required when the removal of sand is considered – this activity will have a direct impact on the mouth of the Estuary and full and longterm survey must be taken to ensure the impact does not have a negativeaffect on the natural course and good health of the Estuary.

Thanking you for this opportunity to register as an I&AP.
Regards

Elspeth Ivey

EnviroAfrica
Environmental Planning and Impact Assessment Consultants
Omgewingsbeplanning en Impakbeoordeling Konsultante

4a

14 April 2014

Ms E Ivey
P O Box 235
STANFORD
7210

Dear Ms Ivey

16/3/1/1/E2/15/2037/14: PROPOSED GROTTO BAY EAST PARKING AREA PROTECTION WORKS ON ERF 4771, HERMANUS

Your request to be registered as I&AP for the abovementioned project on 23 October 2013 is confirmed. Also note that DEA&DP inadvertently closed the file for administrative purposes, but that it was re-opened and now has a new application number (16/3/1/1/E2/15/2037/14) and new exemption application number (16/3/1/4/E2/15/2038/14).

We wish to point out that a considerable amount of work on the breaching of the Kleinriviersvlei mouth has been done over the years and various breaching strategies have been implemented and monitored. Reports that address the concerns that you raised are included in the Basic Assessment Report which is now available for your information and written comment, if any. The BAR is available in the Stanford and Hermanus Libraries and you may also access the BAR at the following link: https://sites.google.com/site/enviroafricaeia/grotto-bay-parking-protection-works

It should be noted that a large portion of the foredunes and coastal vegetation has been removed by the natural breaching of the Kleinriviersvlei to the west of the parking area, to the extent that the coastal road is under threat of collapse. The CSIR report in the BAR also proposes that the mouth should be at a low point to the southeast of the parking lot. Taking all factors into consideration this is what the preferred alternative is proposed to achieve.

The deadline for written comments, if any, is close of work on 30 May 2014 and must be faxed (0865132141) or sent to *EnviroAfrica* (*Grotto Parking*), P O Box 4, ONRUS 7201, quoting reference number 16/3/1/1/E2/15/2037/14 in all correspondence.

Yours sincerely

Charel Bruwer Snr

P O Box 4
ONRUS RIVER 7201
Tel: (028) 3162888
Fax: 0865132141
Cell: 0828050190

CK 2007043835/23
VAT No 4380237091

Charel Bruwer Snr
Charel Bruwer Jnr
Bernard de Witt

MOSAIC
PRIVATE SANCTUARY * HERMANUS LAGOON

Reservations: +27 76 313 2814 Admin Office +27 28 313 2814
info@MosaicSouthAfrica.com PO Box 957 Provincial Road
www.MosaicSouthAfrica.com Stanford 7210 South Africa
C +27 82 825 3211 F +27 86 276 3026 Skype: MosaicSouthAfrica

(5) R-reid 23/10

October 22, 2013

Mr C Bruwer
EnviroAfrica
P O Box 4
Onrus
7201
Fax: 086 513 2141

Re: Grotto Parking
DEA&DP (Ref. Nos. 16/3/1/1/E2/14/2078/13 and 16/3/1/4/E2/14/2079/13

Dear Mr. Bruwer:

We wish to register as Interested and Affected Persons in the Proposed Grotto East Parking Area Protection Works in Hermanus. Our property adjoins the Kleinriver Estuary and therefore any development or work which impacts on the mouth of the Estuary will have a possible impact on the general health of the Estuary in which we have a direct interest.

Please register us as follows:

Mosaic (Hermanus Riviera Estates CC t/a Mosaic)
Kathryn & Breese Johnson
Owners
Provincial Road
PO Box 957
Stanford 7210
+27 28 313 2814 Office
+27 72 219 0996 South African Cell
+1 865 742 8039 USA Cell
kathryn@MosaicSouthAfrica.com
breesej@bellsouth.net

We reject the application for the following reasons:

- The mouth of the Estuary is located close to the proposed work and therefore will have a direct impact on the breaching of the mouth.
- There is a Mouth Breaching Protocol that has been in place from 2010 for five years i.e. 2016, and no work in close proximity to the mouth should be undertaken during this moratorium.
- Further considerations of the impact on the natural marine environment should be considered.
- The high probability of long term affect of the proposed development on the coastal vegetation and fragile intra-coastal flora and fauna in this area should be of prime concern. Insufficient knowledge is available as to the effect of a heavily re-enforced barrier on the natural coastline.

Kind Regards,

Kathryn & Breese Johnson

Kathryn Johnson

EnviroAfrica
Environmental Planning and Impact Assessment Consultants
Omgewingsbeplanning en Impakbeoordeling Konsultante

5a

14 April 2014

Ms K Johnson
P O Box 957
STANFORD
7210

Dear Ms Johnson

16/3/1/1/E2/15/2037/14: PROPOSED GROTTO BAY EAST PARKING AREA PROTECTION WORKS ON ERF 4771, HERMANUS

Your request to be registered as I&AP for the abovementioned project on 23 October 2013 is confirmed. Also note that DEA&DP inadvertently closed the file for administrative purposes, but that it was re-opened and now has a new application number (16/3/1/1/E2/15/2037/14) and new exemption application number (16/3/1/4/E2/15/2038/14).

We wish to point out that a considerable amount of work on the breaching of the Kleinriviersvlei mouth has been done over the years and various breaching strategies have been implemented and monitored. Reports that address the concerns that you raised are included in the Basic Assessment Report which is now available for your information and written comment, if any. The BAR is available in the Stanford and Hermanus Libraries and you may also access the BAR at the following link: https://sites.google.com/site/enviroafricaeia/grotto-bay-parking-protection-works

It should be noted that a large portion of the foredunes and coastal vegetation has been removed by the breaching of the Kleinriviersvlei to the west of the parking area, to the extent that the coastal road is under threat of collapse. The CSIR report in the BAR also proposes that the mouth should be at a low point to the southeast of the parking lot. Taking all factors into consideration this is what the preferred alternative is proposed to achieve.

The deadline for written comments, if any, is close of work on 30 May 2014 and must be faxed (0865132141) or sent to *EnviroAfrica* (*Grotto Parking*), P O Box 4, ONRUS 7201, quoting reference number 16/3/1/1/E2/15/2037/14 in all correspondence.

Yours sincerely

Charel Bruwer Snr

P O Box 4
ONRUS RIVER 7201
Tel: (028) 3162888
Fax: 0865132141
Cell: 0828050190

CK 2007043835/23
VAT No 4380237091

Charel Bruwer Snr
Charel Bruwer Jnr
Bernard de Witt

WATERWAYS NURSERY

KLEINRIVIERSVLEI, HERMANUS

Wholesale Suppliers of Fine Protea Plants

Tel: 028 3141400 Fax: 028 3141330

6

R'ceid 23/10

23 October 2013

Original posted & copy
faxed to 0865132141

Mr C Bruwer
EnviroAfrica (Grotto Parking)
P O Box 4
ONRUS
7201

Dear Mr Bruwer

re: **DEA&DP Ref. Nos. 16/3/1/1/E2/14/2078/13 and 16/3/1/4/E2/14/2079/13 : PROPOSED GROTTO BAY EAST PARKING AREA PROTECTION WORKS, HERMANUS**

Cape Proteas & Ericas (Pty) Ltd owns property adjoining the Kleinriver Estuary and as such will be impacted by any work undertaken close to the mouth.

Our director, Neil McCarthy, is presently overseas and may wish to comment further on his return early November.

Could you please register Cape Proteas & Ericas (Pty) Ltd as an Interested & Affected Party and provide us with the background information document. Our contact details are as follows :

Postal address : 15 Clarewood
1 Annandale Road
Diep River
7800

Phone : 021-715 2676 (b) Fax : 021-715 2687

Yours faithfully
CAPE PROTEAS & ERICAS (PTY) LTD

J HAMPSHIRE (MRS)

EnviroAfrica
Environmental Planning and Impact Assessment Consultants
Omgewingsbeplanning en Impakbeoordeling Konsultante

6a

14 April 2014

Cape Proteas and Ericas (Pty) Ltd
c/o N McCarthy
15 Clarewood
1 Annandale Road
DIEP RIVER
7800

Dear Mr McCarthy

16/3/1/1/E2/15/2037/14: PROPOSED GROTTO BAY EAST PARKING AREA PROTECTION WORKS ON ERF 4771, HERMANUS

Your request for Cape Proteas and Ericas (Pty) Ltd to be registered as I&AP for the abovementioned project on 22 October 2013 is confirmed. Also note that DEA&DP inadvertently closed the file for administrative purposes, but that it was re-opened and now has a new application number (16/3/1/1/E2/15/2037/14) and new exemption application number (16/3/1/4/E2/15/2038/14).

We note that you have not ijndicated exactly where your propety is located in relation to the Grotto Bay east parking area. We may however indicate that the remediation works will be restricted to the immediate area of the parking area. All land surrounding this parking are belongs to the Overstran Municipality and as such should not impact on your property.

We wish to point out that a considerable amount of work on the breaching of the Kleinriviersvlei mouth has been done over the years and various breaching strategies have been implemented and monitored. Reports that address the concerns that you raised are included in the Basic Assessment Report which is now available for your information and written comment, if any. The BAR is available in the Stanford and Hermanus Libraries and you may also access the BAR at the following link: https://sites.google.com/site/enviroafricaeia/grotto-bay-parking-protection-works

The deadline for written comments, if any, is close of work on 30 May 2014 and must be faxed (0865132141) or sent to *EnviroAfrica* (*Grotto Parking*), P O Box 4, ONRUS 7201, quoting reference number 16/3/1/1/E2/15/2037/14 in all correspondence.

Yours sincerely

bopy

Charel Bruwer Snr

P O Box 4
ONRUS RIVER 7201
Tel: (028) 3162888
Fax: 0865132141
Cell: 0828050190

CK 2007043835/23
VAT No 4380237091

Charel Bruwer Snr
Charel Bruwer Jnr
Bernard de Witt

(7) Rec'd 24/10

Roofers Nest Guest House

262, 10th Street

Voelklip

HERMANUS

7200

23 October 2013

EnviroAfrica Overberg (Grotto Parking)

P O Box 4

ONRUS RIVER

7201

REGISTRATION AS INTERESTED AND AFFECTED PARTY

REF 16/3/1/1/E2/14/2078/13

Name : H P Plum

Male

Roofers Nest Guest House

262, 10th Street

Voelklip

Hermanus

7200

Tel : 028-3141404

Email : peterplummail@gmail.com

Owner of Roofers Nest Guest House

I approve of the 1st proposal and schematic diagram of rock protection of the Grotto Bay parking area.

Yours sincerely

H P Plum

(028)3141404

EnviroAfrica
Environmental Planning and Impact Assessment Consultants
Omgewingsbeplanning en Impakbeoordeling Konsultante

7a

14 April 2014

Mr H Plum
Roofer's Nest Guest House
262, 10th Street
HERMANUS
7200

Dear Mr Plum

16/3/1/1/E2/15/2037/14: PROPOSED GROTTO BAY EAST PARKING AREA PROTECTION WORKS ON ERF 4771, HERMANUS

Your request to be registered as I&AP for the abovementioned project on 24 October 2013 is confirmed. Also note that DEA&DP inadvertently closed the file for administrative purposes, but that it was re-opened and now has a new application number (16/3/1/1/E2/15/2037/14) and new exemption application number (16/3/1/4/E2/15/2038/14).

We note your preference for rock protection of the Grotto Bay parking area. The engineering consultants have come up with four alternatives that we investigated from both the engineering, environmental and social aspects against the objectives that are to be met with the project and have found that the preferred protection be that of a sand bag structure (Alternative 3). Reports that address the choice of this Alternative 3 are included in the Basic Assessment Report which is now available for your information and written comment, if any. The BAR is available in the Stanford and Hermanus Libraries and you may also access the BAR at the following link: https://sites.google.com/site/enviroafricaeia/grotto-bay-parking-protection-works

The deadline for written comments, if any, is close of work on 30 May 2014 and must be faxed (0865132141) or sent to *EnviroAfrica* (*Grotto Parking*), P O Box 4, ONRUS 7201, quoting reference number 16/3/1/1/E2/15/2037/14 in all correspondence.

Yours sincerely

Copy

Charel Bruwer Snr

P O Box 4
ONRUS RIVER 7201
Tel: (028) 3162888
Fax: 0865132141
Cell: 0828050190

CK 2007043835/23
VAT No 4380237091

Charel Bruwer Snr
Charel Bruwer Jnr
Bernard de Witt

(8)

R'ceid 24/10

Hermanus Lagoon Property Owners' Association

Tel: 028-3140263 email reivey@iafrica.com

Enviro Africa Overberg
P O Box 4
Onrus
7201
Attention : Mr. Charl Bruwer Snr

Dear Mr Bruwer Snr,

RE : REGISTRATION OF THE HERMANUS LAGOON PROPERTY OWNERS ASSOCIATION (HLPOA) AS AN INTERESTED AND AFFECTED PARTY (I&AP) IN RESPECT OF THE PUBLIC PARTICIPATION PROCESS FOR THE APPLICATION NO. 16/3/1/1/E2/14/2078/13 TO DEA&DP FOR THE PROPOSED GROTTO BAY EAST PARKING AREA PROTECTION WORKS ON ERF NO.4771 HERMANUS

With reference to your general notice in Hermanus Times of 3rd October 2013 in the above matter, the Hermanus Lagoon Property Owners Association (HLPOA) hereby wishes to be registered as an Interested and Affected Party in order to be included in the public participation process anticipated in this matter, and in due course to more fully provide written comment on the application. Kindly include us on your register of I&APs and provide us with all necessary correspondence and available documentation in this regard in due course.

The HLPOA represents the land owners surrounding the Klein Rivier Estuary and has a direct interest in any matters pertaining to the well being, maintenance, and management of the estuary and its environs. The HLPOA is an active participant in the current management process for the estuary breeching protocol and its implementation, and any proposed intervention or activities anticipated within the zone of interface between the lagoon and the sea is of vital concern to all its members.

An initial comment that we would like to put forward is that currently there is a breaching policy for the estuary mouth in place which comes up for review in 2016. In respect of the current breaching policy the mouth has breached naturally in 2012 and 2013, and in both instances on the western side of the estuary mouth. The natural scouring process has resulted in the man-made embankment of the carpark in question being eroded away as the river mouth re-establishes itself along one of its older historical natural routes. It is the opinion of this committee that intervention to preserve the carpark from further erosion as proposed in the application is contrary to the intentions of the current breaching policy for the estuary and that in due course it may be considered preferable to remove and relocate the carpark and braai areas to an area outside of the littoral active zone of the estuary mouth. In which case the proposed activity should be opposed at this stage, and form part of the review process that is anticipated in 2016.

For similar reasons this committee opposes the proposal to remove sand from the dunes separating the estuary from the sea for purposes of providing material for the sand bag proposal. It again interferes with the natural situation that should be allowed to remain until the review process in 2016.

Registration Details:
Name: Hermanus Lagoon Property Owners Association
Postal contact details: P O Box 235, Stanford, 7210
Telephone: 028-3140263 Cell 0827707320 Fax 0865908638

Thank you for the opportunity to register and make initial comments. It is anticipated that this committee will make further comments during the public participation process.

Yours faithfully,

E L L Ivey,
Chair, HLPOA

EnviroAfrica
Environmental Planning and Impact Assessment Consultants
Omgewingsbeplanning en Impakbeoordeling Konsultante

4a

14 April 2014

The Chairman: Hermanus Lagoon Property Owners Association
c/o Ms E Ivey
P O Box 235
STANFORD
7210

Dear Ms Ivey

16/3/1/1/E2/15/2037/14: PROPOSED GROTTO BAY EAST PARKING AREA PROTECTION WORKS ON ERF 4771, HERMANUS

Your request for HLPOA to be registered as I&AP for the abovementioned project on 24 October 2013 is confirmed. Also note that DEA&DP inadvertently closed the file for administrative purposes, but that it was re-opened and now has a new application number (16/3/1/1/E2/15/2037/14) and new exemption application number (16/3/1/4/E2/15/2038/14).

We wish to point out that a considerable amount of work on the breaching of the Kleinriviersvlei mouth has been done over the years and various breaching strategies have been implemented and monitored. Reports that address the concerns that you raised are included in the Basic Assessment Report which is now available for your information and written comment, if any. The BAR is available in the Stanford and Hermanus Libraries and you may also access the BAR at the following link: https://sites.google.com/site/enviroafricaeia/grotto-bay-parking-protection-works

It should be noted that a large portion of the fore dunes and coastal vegetation has been removed by the two natural recent breachings of the Kleinriviersvlei to the west of the parking area, to the extent that the coastal road is under threat of collapse. The CSIR report in the BAR also proposes that the mouth should be at a low point to the southeast of the parking lot. Taking all factors into consideration this is what the preferred alternative is proposed to achieve.

The deadline for written comments, if any, is close of work on 30 May 2014 and must be faxed (0865132141) or sent to *EnviroAfrica* (*Grotto Parking*), P O Box 4, ONRUS 7201, quoting reference number 16/3/1/1/E2/15/2037/14 in all correspondence.

Yours sincerely

Copy

Charel Bruwer Snr

P O Box 4
ONRUS RIVER 7201
Tel: (028) 3162888
Fax: 0865132141
Cell: 0828050190

CK 2007043835/23
VAT No 4380237091

Charel Bruwer Snr
Charel Bruwer Jnr
Bernard de Witt

(9) Rec'd 24/10

TO : FAX. 086.513.2141

Enviro Africa

ATT: C.A. Brewer.

22, The Avenue
Silverhurst Estate
Constantia
7806
FAX.086.515.6823.
Tel & [redacted]: 794-4620
savuti@universe.co.za

REF: 16/3/1/1/E2/14/2078/13

24/10/13.

Dear Sir,

Grotto Bay East Car Park

Please register me as an I.&.A.P. and keep me advised of developments by email, as things progress.

I own a property in Vaalkliff.

Many Thanks,

Brian Ratcliffe

signed: B S Ratcliffe

EnviroAfrica
Environmental Planning and Impact Assessment Consultants
Omgewingsbeplanning en Impakbeoordeling Konsultante

9a

14 April 2014

Mr B Ratcliffe
22, The Avenue
Silverhurst Estate
CONSTANTIA
7806

Dear Mr Ratcliffe

16/3/1/1/E2/15/2037/14: PROPOSED GROTTO BAY EAST PARKING AREA PROTECTION WORKS ON ERF 4771, HERMANUS

Your request to be registered as I&AP for the abovementioned project on 24 October 2013 is confirmed. Also note that DEA&DP inadvertently closed the file for administrative purposes, but that it was re-opened and now has a new application number (16/3/1/1/E2/15/2037/14) and new exemption application number (16/3/1/4/E2/15/2038/14).

We note that you have not raised any issues concerns and impacts that you wished to be addressed in the Basic Assessment Report (BAR). It is essential that you raise these issues at the very onset of the impact assessment process, in order for them to be addressed as early as possible in the process and in the BAR, otherwise it leads to unacceptable delays in the completion of the impact assessment process.

The BAR is now available in the Stanford and Hermanus Libraries for your information and written comment, if any. You may also access the BAR at the following link: https://sites.google.com/site/enviroafricaeia/grotto-bay-parking-protection-works

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Yours sincerely

Copy

Charel Bruwer Snr

P O Box 4
ONRUS RIVER 7201
Tel: (028) 3162888
Fax: 0865132141
Cell: 0828050190

CK 2007043835/23
VAT No 4380237091

Charel Bruwer Snr
Charel Bruwer Jnr
Bernard de Witt

Rec'd 25/10

(10)

260 11th Street
Vaalkliip
Hermanus
25 October 2013

ENVIRO AFRICA
ONRUS RIVER
FAX No 0865132141

Postal Address
P.O. Box 1278 Cape Town
TEL: 083 675 2285
EMAIL: lori@deleeuw.co.za
FAX: 021 4236732

Dear Sir

GROTTO PARKING Ref No. 16/3/1/1/E2/14/2078/13

Your correspondence dated 3 October 2013 has reference.

I am delighted to be advised that there is intention to effect protection to the banks of the Grotto Bay area for parking where it borders the Klein River

I would endorse the use of ROCK PROTECTION as illustrated in your schematic diagram

Regards

L. COLLUSI (owner of erf 5285 Hermanus)

(10a)

EnviroAfrica

Environmental Planning and Impact Assessment Consultants
Omgewingsbeplanning en Impakbeoordeling Konsultante

14 April 2014

Mr L Colussi
P O Box 1278
CAPE TOWN
8000

Dear Mr Colussi

16/3/1/1/E2/15/2037/14: PROPOSED GROTTO BAY EAST PARKING AREA PROTECTION WORKS ON ERF 4771, HERMANUS

Your request to be registered as I&AP for the abovementioned project on 25 October 2013 is confirmed. Also note that DEA&DP inadvertently closed the file for administrative purposes, but that it was re-opened and now has a new application number (16/3/1/1/E2/15/2037/14) and new exemption application number (16/3/1/4/E2/15/2038/14).

We note your preference for rock protection of the Grotto Bay parking area. The engineering consultants have come up with four alternatives that we investigated from both the engineering, environmental and social aspects against the objectives that are to be met with the project and have found that the preferred protection be that of a sand bag structure (Alternative 3). Reports that address the choice of this Alternative 3 are included in the Basic Assessment Report which is now available for your information and written comment, if any. The BAR is available in the Stanford and Hermanus Libraries and you may also access the BAR at the following link: https://sites.google.com/site/enviroafricaeia/grotto-bay-parking-protection-works

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Yours sincerely

Charel Bruwer Snr

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CK 2007043835/23
VAT No 4380237091

Charel Bruwer Snr
Charel Bruwer Jnr
Bernard de Witt

?

(11)

R'ceid 23/10

18 Sunnybrae Crescent
7200 Hermanus
22 October 2013

EnviroAfrica Overberg (Grotto Parking)
Mr C A Bruwer
P O Box 4
Onrus River
7201

Dear Sir,
Re: Your letter dated 3 October 2013.

I wish to register as an Interested and Affected Party.

I am joint owner of erf 3730 Voëlklip.

I am not in favour of the construction of the parking facility as proposed in the diagrams attached to the letter. The proposed area is below the high water mark and the former man-made parking lot should never have been constructed there. To once again build up an artificial wall is totally against nature and very costly. It is, in my opinion, damaging to the environment and an unnecessary waste of tax payers' money.

Over the past few years the Klein River has been artificially opened to the sea on the Stanford side of the beach. This is, however, not the natural place for the mouth of the estuary. I believe the beach and estuary should be left to nature.

Yours faithfully

Lyndall Murray

EnviroAfrica

Environmental Planning and Impact Assessment Consultants
Omgewingsbeplanning en Impakbeoordeling Konsultante

11a

14 April 2014

Mr L Murray
18 Sunnybrae Crescent
HERMANUS
7200

Dear Mr Murray

16/3/1/1/E2/15/2037/14: PROPOSED GROTTO BAY EAST PARKING AREA PROTECTION WORKS ON ERF 4771, HERMANUS

Your request to be registered as I&AP for the abovementioned project on 23 October 2013 is confirmed. Also note that DEA&DP inadvertently closed the file for administrative purposes, but that it was re-opened and now has a new application number (16/3/1/1/E2/15/2037/14) and new exemption application number (16/3/1/4/E2/15/2038/14).

We wish to point out that a considerable amount of work on the breaching of the Kleinriviersvlei mouth has been done over the years and various breaching strategies have been implemented and monitored. Reports that address the concerns that you raised are included in the Basic Assessment Report which is now available for your information and written comment, if any. The BAR is available in the Stanford and Hermanus Libraries and you may also access the BAR at the following link: https://sites.google.com/site/enviroafricceia/grotto-bay-parking-protection-works

It should be noted that a large portion of the fore dunes and coastal vegetation has been removed by the last two natural breachings of the Kleinriviersvlei to the west of the parking area, to the extent that the coastal road is under threat of collapse. The CSIR report in the BAR also proposes that the mouth should be at a low point to the southeast of the parking lot. Taking all factors into consideration this is what the preferred alternative is proposed to achieve.

The deadline for written comments, if any, is close of work on 30 May 2014 and must be faxed (0865132141) or sent to *EnviroAfrica* (*Grotto Parking*), P O Box 4, ONRUS 7201, quoting reference number 16/3/1/1/E2/15/2037/14 in all correspondence.

Yours sincerely

Copy

Charel Bruwer Snr

P O Box 4
ONRUS RIVER 7201
Tel: (028) 3162888
Fax: 0865132141
Cell: 0828050190

CK 2007043835/23
VAT No 4380237091

Charel Bruwer Snr
Charel Bruwer Jnr
Bernard de Witt

(12)

Charel Bruwer

From: Charel Bruwer [charel@enviroafrica.co.za]
Sent: 03 December 2013 02:10 PM
To: 'Rhett Smart'
Subject: RE: Register as I&AP

Received 3/12

Hi Rhett, Please provide me URGENTLY with the issues you want to see addressed in order to incorporate them in the draft BAR. Also note that the deadline for comment was 25 October 2013. It really causes us problems when the deadlines are not met.
Thanks in anticipation

Charel Bruwer Snr

EnviroAfrica
Environmental Planning and Impact Assessment Consultants
C + 27 82 80 50 190 **T** + 27 28 316 2888 **F** + 27 86 513 2141
PO Box 4, Onrus, 7201, South Africa

From: Rhett Smart [mailto:landuse@capenature.co.za]
Sent: 03 December 2013 01:59 PM
To: Charel Bruwer
Subject: Register as I&AP
Importance: High

Dear Charel

Please register CapeNature as an interested and affected party for the following two projects:

- Proposed Grotto Bay East Parking Area Protection Works, Erf 4771, Hermanus
- Proposed expansion upgrade of HIK Abalone Farm on Portion 2 of Farm 308 and Portion of Farm 339, Buffeljagsbaai

Regards

Rhett

Rhett Smart
Scientist: Land Use Advisor | Scientific Services

CapeNature

tel +27 21 866 8000 | **fax** +27 86 529 4992 | **cell** +27 72 835 8741
email landuse@capenature.co.za | **postal** Private Bag x5014 Stellenbosch 7599
physical Assegaaibosch Nature Reserve, Jonkershoek, Stellenbosch, 7599
www.capenature.co.za

EnviroAfrica
Environmental Planning and Impact Assessment Consultants
Omgewingsbeplanning en Impakbeoordeling Konsultante

12a

14 April 2014

Mr R Smart
Cape Nature
Private Bag X5014
STELLENBOSCH
7599

Dear Mr Smart

16/3/1/1/E2/15/2037/14: PROPOSED GROTTO BAY EAST PARKING AREA PROTECTION WORKS ON ERF 4771, HERMANUS

Your request to be registered as I&AP for the abovementioned project on 3 December 2013 is confirmed. Also note that DEA&DP inadvertently closed the file for administrative purposes, but that it was re-opened and now has a new application number (16/3/1/1/E2/15/2037/14) and new exemption application number (16/3/1/4/E2/15/2038/14).

We note that you have not raised any issues concerns and impacts that you wished to be addressed in the Basic Assessment Report (BAR). It is essential that you raise these issues at the very onset of the impact assessment process, in order for them to be addressed as early as possible in the process, otherwise it leads to unacceptable delays in the completion of the impact assessment process.

The BAR is now available in the Stanford and Hermanus Libraries for your information and written comment, if any. You may also access the BAR at the following link: https://sites.google.com/site/enviroafricaeia/grotto-bay-parking-protection-works

The deadline for written comments, if any, is close of work on 30 May 2014 and must be faxed (0865132141) or sent to *EnviroAfrica* (*Grotto Parking*), P O Box 4, ONRUS 7201, quoting reference number 16/3/1/1/E2/15/2037/14 in all correspondence.

Yours sincerely

bopay

Charel Bruwer Snr

P O Box 4
ONRUS RIVER 7201
Tel: (028) 3162888
Fax: 0865132141
Cell: 0828050190

CK 2007043835/23
VAT No 4380237091

Charel Bruwer Snr
Charel Bruwer Jnr
Bernard de Witt

(13)
Rec'd late
10/2/14

BREEDE-OVERBERG

Catchment Management Agency
Opvanggebied Bestuursagentskap
I-Arhente yoLawulo lomMandla nokungqongileyo

Breede-Overberg CMA
Private Bag X3055
Worcester
6850

Breede- Overberg OBA
Privaatsak X3055
Worcester
6850

Breede-Overberg CMA
Ingxowa X3055
Worcester
6850

E-mail: pcoller@bocma.co.za
Cell: 071 687 0495

Navrae: / Enquiries/ Imibuzo: P van Coller
☎ (023) 346 8018
Verwysing: / Reference/iReferenci: 4/10/2/G40H/Grotto Parking area
Datum: / Date: 6 February 2014

Enviro Africa
P.O. Box 4
ONRUS RIVER
7201

Sir / Madam

COMMENT ON THE PROPOSED GROTTO BAY EAST PARKING AREA PROTECTION WORKS ON ERF 4771, HERMANUS.

With reference to the Public Participation Process document of the protection works, dated 3 October 2013, the following:

This office, in principle, has no objection to the proposed protection works on Erf 4771, subject to the following conditions.

- All relevant sections and regulations of the National Water Act, 1998 (Act 36 of 1998) regarding water use must be adhered to.
- Storm water management must be addressed both in terms of flooding and pollution potential.
- .No permanent structures maybe constructed within the 1:100 year flood line of any watercourse (seasonal or permanent river, stream, etc.) or alternatively, more than 100 metres from the edge of a water resource, whichever is further.
- The waste generated by the facility needs to be managed of in terms of the National Environmental Management Waste Act, 2008 (Act 59 of 2008) on the property and the final disposal of the waste at a licensed solid waste disposal site.

- The minimizing of waste must be promoted in the area and alternative methods for waste management must be investigated.

Please do not hesitate to contact Mr. P. van Coller 071 687 0495 or either pcoller@bocma.co.za, if you have any further queries.

Yours faithfully

PHAKAMANI BUTHELEZI
CHIEF EXECUTIVE OFFICER

13a

EnviroAfrica
Environmental Planning and Impact Assessment Consultants
Omgewingsbeplanning en Impakbeoordeling Konsultante

14 April 2014

Chief Executive Officer
BOCMA
Private Bag X3055
WORCESTER
6850

Attention: Mr P van Coller

Dear Mr Van Coller

16/3/1/1/E2/15/2037/14: PROPOSED GROTTO BAY EAST PARKING AREA PROTECTION WORKS ON ERF 4771, HERMANUS

Your letter dated 6 February 2014 refers.

We note that you have not raised any issues concerns and impacts that you wished to be addressed in the Basic Assessment Report (BAR). It is essential that you raise these issues at the very onset of the impact assessment process, in order for them to be addressed as early as possible in the process, otherwise it leads to unacceptable delays in the completion of the impact assessment process.

The BAR is now available for your information and written comment, if any, in the Stanford and Hermanus libraries and may also be accessed at the following link: https://sites.google.com/site/enviroafricaeia/grotto-bay-parking-protection-works

As per your letter all sections and regulations of the National Water Act regarding water use will be adhered to. Storm water generated from the rehabilitated parking area will be minimal and it must be noted that there is a nearby wetland that is already formed due to the stormwater runoff from the greater Voëlklip area. Note that there are already permanent structures closer than 100 metres from the edge of the water course consisting of ablution blocks and braai areas, but it is way above the 1:100 year flood line.Waste, if any will be appropriately dealt with

The deadline for written comments, if any, is close of work on 30 May 2014 and must be faxed (0865132141) or sent to *EnviroAfrica* (*Grotto Parking*), P O Box 4, ONRUS 7201, quoting reference number 16/3/1/1/E2/15/2037/14 in all correspondence.

Yours sincerely

Copy

Charel Bruwer Snr

P O Box 4
ONRUS RIVER 7201
Tel: (028) 3162888
Fax: 0865132141
Cell: 0828050190

CK 2007043835/23
VAT No 4380237091

Charel Bruwer Snr
Charel Bruwer Jnr
Bernard de Witt

(14)

Charel Bruwer

R'cvd 25/10.

From: Rob Fryer [rob.fryer@ocf.org.za]
Sent: 25 October 2013 03:28 PM
To: Charel Bruwer
Subject: Re: Proposed Grotto Bay East Parking Area Protection Works (DEA&DP Ref: 16/3/1/1/E2/13/2078/13)

Office Note: Responded by fax on 25 Oct. and requested confirmation of receipt on 18 Dec.

Dear Charel

Kindly respond to the e-mail of the 22 October. Failure to do so will result in the WCC taking the public participation process on review to have it declared void.

Not received. Faxed copy of BID

Regards

Rob

On 22 October 2013 08:24, Rob Fryer <rob.fryer@ocf.org.za> wrote:
Dear Charl

Please register Whale Coast Conservation as an I&AP for the EIA process DEA&DP Ref No. DEA&DP Ref: 16/3/1/1/E2/13/2078/13.

Please provide me with an electronic copy of the background information document.

Please acknowledge receipt and confirm registration as an I&AP.

Regards

Rob

--

--

(14a)

EnviroAfrica

Environmental Planning and Impact Assessment Consultants
Omgewingsbeplanning en Impakbeoordeling Konsultante

14April 2014

The Chairman: Whale Coast Conservation Foundation
c/o R Fryer
P O Box 1949
HERMANUS
7200

Dear Mr Fryer

16/3/1/1/E2/15/2037/14PROPOSED GROTTO BAY EAST PARKING AREA PROTECTION WORKS ON ERF 4771, HERMANUS

Your request to be registered as I&AP for the abovementioned project on 25 October 2013 is confirmed. Also note that DEA&DP inadvertently closed the file for administrative purposes, but that it was re-opened and now has a new application number (16/3/1/1/E2/15/2037/14) and new exemption application number (16/3/1/4/E2/15/2038/14).

We note that you have not raised any issues concerns and impacts that you wished to be addressed in the Basic Assessment Report (BAR). It is essential that you raise these issues at the very onset of the impact assessment process, in order for them to be addressed as early as possible in the process, otherwise it leads to unacceptable delays in the completion of the impact assessment process.

The BAR is now available in the Stanford and Hermanus Libraries for your information and written comment, if any. You may also access the BAR at the following link: https://sites.google.com/site/enviroafricaeia/grotto-bay-parking-protection-works

The deadline for written comments, if any, is close of work on 30 May 2014 and must be faxed (0865132141) or sent to *EnviroAfrica* (*Grotto Parking*), P O Box 4, ONRUS 7201, quoting reference number 16/3/1/1/E2/15/2037/14 in all correspondence.

Yours sincerely

Copy

Charel Bruwer Snr

P O Box 4
ONRUS RIVER 7201
Tel: (028) 3162888
Fax: 0865132141
Cell: 0828050190

CK 2007043835/23
VAT No 4380237091

Charel Bruwer Snr
Charel Bruwer Jnr
Bernard de Witt

In our movement to cyber-internet communications we do not have a fax and I am sure many others do not as well. I advise you that my electronic version is my formal communication and that your office make a hard copy of my expression to register as an IAP.

Kind regards

Giorgio

R' ceid 24/10 (15)

From: Charel Bruwer [mailto:chareljnr@enviroafrica.co.za]
Sent: 25 October 2013 07:50 AM
To: 'VOGELGAT'
Subject: RE: IAP

Morning Mr Lombardi

Thank you for your mail, I note your request for registration. I have verified that no fax was received in this regard today and would like to request that you please resend to the number below if you have not done so before. The reason for this is that a fax transmission list is used as a paper trail of communication during the Public Participation Process.

Many thanks
Charel Bruwer Jnr

EnviroAfrica
Environmental Planning and Impact Assessment Consultants
C + 27 82 376 55 44 **T** + 27 28 316 2888 **F** + 27 86 513 2141
PO Box 4, Onrus, 7201, South Africa

From: VOGELGAT [mailto:vogelgatreserve@telkomsa.net]
Sent: 24 October 2013 09:13 AM
To: chareljnr@enviroafrica.co.za
Subject: IAP

Dear Mr Bruwer

DEA&DP (Ref. Nos. 16/3/1/1/E2/14/2078/13 and 16/3/1/4/E2/14/2079/13

I wish to register as an Interested and Affected person in the Proposed Grotto East Parking Area Protection Works, Hermanus. My details are as follows:-

Name: GIORGIO LOMBARDI
Postal Contact Information: P O BOX 2115, HERMANUS 7200
Telephone numbers: Landline :0283141411 Cell 0828645297 Fax ?? Refer web. 0866932704

Interest in the approval or rejection of the application:
I have concerns regarding the of the impact on the natural marine environment should be considered. The high probability of long term affect of the proposed development on the coastal vegetation and fragile intracoastal flora and fauna in this area should be of prime concern. Insufficient knowledge is available as to the effect of a heavily re-inforced barrier on the natural coastline.

Regards
Giorgio Lombardi

Giorgio Lombardi
Warden
Vogelgat Private Nature Reserve
P O BOX 2115

(15a)

EnviroAfrica

Environmental Planning and Impact Assessment Consultants
Omgewingsbeplanning en Impakbeoordeling Konsultante

14 April 2014

Mr G Lombardi
P O Box 2115
HERMANUS
7200

Dear Mr Lombardi

16/3/1/1/E2/15/2037/14: PROPOSED GROTTO BAY EAST PARKING AREA PROTECTION WORKS ON ERF 4771, HERMANUS

Your request to be registered as I&AP for the abovementioned project on 24 October 2013 is confirmed. Also note that DEA&DP inadvertently closed the file for administrative purposes, but that it was re-opened and now has a new application number (16/3/1/1/E2/15/2037/14) and new exemption application number (16/3/1/4/E2/15/2038/14).

We wish to point out that a considerable amount of work on the breaching of the Kleinriviersvlei mouth has been done over the years and various breaching strategies have been implemented and monitored. Reports that address the concerns that you raised are included in the Basic Assessment Report which is now available for your information and written comment, if any. The BAR is available in the Stanford and Hermanus Libraries and you may also access the BAR at the following link: https://sites.google.com/site/enviroafricaeia/grotto-bay-parking-protection-works

It should be noted that a large portion of the fore dunes and coastal vegetation has been removed by the last two natural breachings of the Kleinriviersvlei to the west of the parking area, to the extent that the coastal road is under threat of collapse. The CSIR report in the BAR also proposes that the mouth should be at a low point to the southeast of the parking lot. Taking all factors into consideration this is what the preferred alternative is proposed to achieve.

The deadline for written comments, if any, is close of work on 30 May 2014 and must be faxed (0865132141) or sent to *EnviroAfrica* (*Grotto Parking*), P O Box 4, ONRUS 7201, quoting reference number 16/3/1/1/E2/15/2037/14 in all correspondence.

Yours sincerely

Copy

Charel Bruwer Snr

P O Box 4
ONRUS RIVER 7201
Tel: (028) 3162888
Fax: 0865132141
Cell: 0828050190

CK 2007043835/23
VAT No 4380237091

Charel Bruwer Snr
Charel Bruwer Jnr
Bernard de Witt

Rcvd 28/10
16

Antony van Hoogstraten
Pennant Nine, R43 Hermanus/Stanford Rd
P O Box 1566
Hermanus 7200

To: EnviroAfrica Overberg
P O Box 4
Onrus 7201

CC: The Mayor; the Municipal Manager; Liezl Bezuidenhout; Elspeth Ivey; Duncan Heard - Chairman Fernkloof Advisory Board; Pierre de Villiers - Cape Nature.

Attention: Mr. Charl Bruwer Snr.

Dear Sirs

RE: REGISTRATION OF MYSELF AS AN INTERESTED AND AFFECTED PARTY (I&AP) IN RESPECT OF THE PUBLIC PARTICIPATION PROCESS FOR THE APPLICATION NO. 16/3/1/1/E2/14/2078/13 TO DEA&DP FOR THE PROPOSED GROTTO BAY EAST PARKING AREA PROTECTION WORKS ON ERF NO.4771 HERMANUS

With reference to your general letter of 3rd October 2013 in the above matter, I wish to be registered as an Interested and Affected Party in order to be included in the public participation process anticipated in the above document. Kindly include me in your register of I&APs and provide me with the necessary correspondence and available documentation in this regard in due course.

As requested by yourselves, I submit the following personal information:
Antony Delalaing van Hoogstraten, male, P O Box 1566, Hermanus 7200,
Tel: 028 314 0470, cell: 083 290 7575, No fax no., Email: carolvh@hermanus.co.za

I am the beneficial owner of 3 riperian erven on the Hermanus lagoon, west of the Hermanus Yacht Club, known collectively as Pennant Nine.
I am a member of the Fernkloof Advisory Board, appointed by the mayor.
I am a committee member of the Hermanus Lagoon Property Owners Association.
My permanent place of residence for the past 14 years is Pennant Nine.
I am a trustee of the Vogelgat Nature Reserve Trust and a shareholder of the Vogelgat Nature Reserve (Pty) Ltd.
For the past 20 years I have held the position as chairman of the Hermanus Annual Camp which has held a 2 week boy's camp at De Mond for an unbroken 100 years and is a constituted body.

At the outset I would like to register my strongest disapproval of the whole proposal and I would like to note the following:

1 It is Grotto beach, and not Grotto bay, which is under consideration.

2 The dumping of the rubble of the old Birkenhead Hotel on the beach below the high water mark, in the 1980's, was an ill-conceived and inappropriate action by the then municipality. I would like to think that this would not be tolerated or allowed today.

3 In my opinion any attempt to stabilise and protect this area would be a gross waste of public funds and severely interfere with the natural breachings of the estuary.

4 Your reference to natural breachings is clearly erronious as all the breachings to which you refer were artificial manmade openings. I would like to be afforded an opportunity to demonstrate to you, and any other interested parties, where natural breachings took place in the past.

5 The idea of taking sand off the beach is contrary to all recent ecological protocol and I find it hard to believe that such an idea has been suggested.

6 There are ample picnicking facilities at Piet se Bos close to the ocean.

7 This public participation process is already grossly flawed in that the newspaper advert in the Hermanus Times of the 3rd October is small and virtually illegible, and the mailing list of the above mentioned document excludes the Fernkloof Advisory Board (the Fernkloof Nature is adjacent to the site) and all the riperian property owners on the Hermanus lagoon, including the Hermanus Lagoon Property Owners Association. It also excludes Mr Pierre de Villiers, Cape Nature's expert on estuaries under its jurisdiction. The mailing list does include a few Voelklip property owners, most of whom are not permanent residents and are unlikely to get the document on time so are unlikely to respond by due date.

8 I am surprised that in this day and age internet facilities are not being used, hence frustrating the process.

9 I reserve the right to make further input at a later date.

QUESTION: At what point in the process will cost estimates be supplied?

Yours faithfully,

Antony van Hoogstraten . A. Van Hoogstraten

23:10:2013

16a

EnviroAfrica

Environmental Planning and Impact Assessment Consultants
Omgewingsbeplanning en Impakbeoordeling Konsultante

14 April 2014

Mr A van Hoogstraten
P O Box 1566
HERMANUS
7200

Dear Mr Van Hoogstraten

16/3/1/1/E2/15/2037/14: PROPOSED GROTTO BAY EAST PARKING AREA PROTECTION WORKS ON ERF 4771, HERMANUS

Your request to be registered as I&AP for the abovementioned project received on 28 October 2013 is confirmed. Also note that DEA&DP inadvertently closed the file for administrative purposes, but that it was re-opened and now has a new application number (16/3/1/1/E2/15/2037/14) and new exemption application number (16/3/1/4/E2/15/2038/14).

With regard to your comments on the breaching position of the mouth, we wish to point out that a considerable amount of work on the breaching of the Kleinriviersvlei mouth has been done over the years and various breaching strategies have been implemented and monitored. Reports that address the concerns that you raised are included in the Basic Assessment Report which is now available for your information and written comment, if any. The BAR is available in the Stanford and Hermanus Libraries and you may also access the BAR at the following link: https://sites.google.com/site/enviroafricaeia/grotto-bay-parking-protection-works

It should be noted that a large portion of the foredunes and coastal vegetation has been removed by the two recent natural breachings of the Kleinriviersvlei to the west of the parking area, to the extent that the coastal road is under threat of collapse. The CSIR report in the BAR also proposes that the mouth should be at a low point to the southeast of the parking lot. Taking all factors into consideration this is what the preferred alternative is proposed to achieve.

With regard to your reference to a "flawed public participation process" because of a small advert and the number of organisations, which in your mind should have received notices, we wish to respond as follows. If you peruse the newspapers in which the adverts for an EIA process is advertised, you will see that these small adverts are becoming the "corporate branding" of the industry. They are much easier noticed and attract the reader to find out what is contained therein. It catches the eye because it is not lost in

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Charel Bruwer Snr
Charel Bruwer Jnr
Bernard de Witt

similar printing amongst all the other adverts and notices that the majority of people ignore in any case. The intention can never be to "hide" the advert because of its smallness and therefore uniqueness, it really attracts the attention. With regard to the organisations that you mention, we wish to point out that it is impossible to identify each and every party that has an interest in a matter. Therefore the BID contains the following sentence "*If you know of anybody that would have an interest in this matter please bring this notice to their attention. A background information document is available upon request*". This method of enlisting the co-operation of the initially identified potential I&APs is referred to as "webbing and chaining" and gives parties like yourself the opportunity to alert other parties that you feel may have an interest in the matter, to be made aware and participate in the process. This process works best if one indulges and responds at the very beginning of the notice date and not wait until time has run out on the last day of the deadline. Finally we wish to point out that the organisations that were brought to our attention did receive the BID and did respond by the deadline.

The deadline for written comments, if any, is close of work on 30 May 2014 and must be faxed (0865132141) or sent to *EnviroAfrica* (*Grotto Parking*), P O Box 4, ONRUS 7201, quoting reference number 16/3/1/1/E2/15/2037/14 in all correspondence. While the deadline for comment is more than 40 days distant, we urge you to respond at your earliest convenience. That will afford us the opportunity to clarify any uncertainties that you may have before the deadline date.

Yours sincerely

Charel Bruwer Snr

(17a)

EnviroAfrica

Environmental Planning and Impact Assessment Consultants
Omgewingsbeplanning en Impakbeoordeling Konsultante

14 April 2014

Mr J Martin
P O Box 73
STANFORD
7210

Dear Mr Martin

16/3/1/1/E2/15/2037/14: PROPOSED GROTTO BAY EAST PARKING AREA PROTECTION WORKS ON ERF 4771, HERMANUS

Your request to be registered as I&AP for the abovementioned project on 22 October 2013 is confirmed. Also note that DEA&DP inadvertently closed the file for administrative purposes, but that it was re-opened and now has a new application number (16/3/1/1/E2/15/2037/14) and new exemption application number (16/3/1/4/E2/15/2038/14).

We note that you have not raised any issues concerns and impacts that you wished to be addressed in the Basic Assessment Report (BAR). It is essential that you raise these issues at the very onset of the impact assessment process, in order for them to be addressed as early as possible in the process, otherwise it leads to unacceptable delays in the completion of the impact assessment process.

The BAR is now available in the Stanford and Hermanus libraries for your information and written comment, if any. You may access the BAR at the following link: https://sites.google.com/site/enviroafricaeia/grotto-bay-parking-protection-works

The deadline for written comments, if any, is close of work on 30 May 2014 and must be faxed (0865132141) or sent to *EnviroAfrica* (*Grotto Parking*), P O Box 4, ONRUS 7201, quoting reference number 16/3/1/1/E2/15/2037/14 in all correspondence.

Yours sincerely

Copy

Charel Bruwer Snr

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VAT No 4380237091

Charel Bruwer Snr
Charel Bruwer Jnr
Bernard de Witt

(18a)

EnviroAfrica
Environmental Planning and Impact Assessment Consultants
Omgewingsbeplanning en Impakbeoordeling Konsultante

14 April 2014

The Chief Director
Dept of Water Affairs
Private Bag X15
SANLAMHOF
7532

Dear Sir

16/3/1/1/E2/15/2037/14: PROPOSED GROTTO BAY EAST PARKING AREA PROTECTION WORKS ON ERF 4771, HERMANUS

We have had no response to our letter dated 3 October 2013. Please note that DEA&DP automatically includes DWA as a registered I&AP and that failure to respond to documentation retards the EIA process unnecessarily Also note that DEA&DP inadvertently closed the file for administrative purposes, but that it was re-opened and now has a new application number (16/3/1/1/E2/15/2037/14) and new exemption application number (16/3/1/4/E2/15/2038/14).

We also note that you have not raised any issues concerns and impacts that you wished to be addressed in the Basic Assessment Report (BAR). It is essential that you raise these issues at the very onset of the impact assessment process, in order for them to be addressed as early as possible in the process, otherwise it leads to unacceptable delays in the completion of the impact assessment process.

The BAR is now available in the Stanford and Hermanus libraries for your information and written comment, if any. You may also access the BAR at the following link: https://sites.google.com/site/enviroafricaeia/grotto-bay-parking-protection-works

The deadline for written comments, if any, is close of work on 30 May 2014 and must be faxed (0865132141) or sent to *EnviroAfrica* (*Grotto Parking*), P O Box 4, ONRUS 7201, quoting reference number 16/3/1/1/E2/15/2037/14 in all correspondence.

Yours sincerely

Charel Bruwer Snr

P O Box 4
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Charel Bruwer Snr
Charel Bruwer Jnr
Bernard de Witt

EnviroAfrica
Environmental Planning and Impact Assessment Consultants
Omgewingsbeplanning en Impakbeoordeling Konsultante

3 October 2013

To all Interested and Affected Parties

PUBLIC PARTICIPATION PROCESS: DEA&DP REF Nos.16/3/1/1/E2/14/2078/13: PROPOSED GROTTO BAY EAST PARKING AREA PROTECTION WORKS ON ERF NO. 4771 , HERMANUS.

Overstrand Municipality is lodging an application for environmental authorization with the Provincial Department of Environmental Affairs and Development Planning (DEA&DP) for the proposed Grotto Bay East parking area protection works on a portion of Erf 4771, Hermanus, located at the eastern end of the road past Grotto Beach where the Kleinrivier lagoon mouth is currently located. The proposed protection works entails an action that triggers a number of listed activities (see copy of advert attached) under the National Environmental Management Act (Act 107 of 1998) and therefore has to meet the requirements under the Act. An Application Form for the activities was submitted to DEA&DP (Ref No.16/3/1/1/E2/14/2078/13) with application made for exemption from certain provisions required or regulated by NEMA Regulations in terms of Regulation 50 of the EIA Regulations, 2010 (Ref No. 16/3/1/4/E2/14/2079/13).

The Act aims to provide, amongst other, to initially identified Interested and Affected Parties, immediate neighbours, local authority, ward councillor and organs of state that has jurisdiction in the matter, the opportunity to participate in the decision making process of listed activities. The purpose of this attached Background Information Document (BID) is to supply information at the very onset of the investigation about the proposed activity, in order to facilitate active inputs and participation by potential interested and affected parties in the process. If you know of anybody that would have an interest in this matter please bring this notice to their attention. A background information document is available upon request.

In terms of NEMA Regulation (R543 (54(2)(b)) you are invited, if you wish, to register as an Interested and Affected Party (I&AP) in the identification of issues, concerns and impacts *now*, if any, around the proposed activity. Any issues, concerns and impacts raised during the impact assessment process will be addressed as determined by the Act, a draft of which will be available for comment in writing to registered I&APs. After the finalisation of the appropriate required report(s) it will be submitted to the competent authority (in this instance DEA&DP) for a decision on whether the proposed activity may proceed or not, with or without conditions, or whether further information is required in the environmental impact assessment process.

If you wish to provide written comments on the application, please register as an Interested and Affected Party by submitting your name, gender, postal contact information, telephone and fax number, disclosing in detail any direct business, financial, personal or other interest in the approval or refusal of the application, quoting Ref. No. 16/3/1/1/E2/14/2078/13 in writing to ***EnviroAfrica Overberg*** (*Grotto Parking*), P O Box 4 Onrus 7201 or Fax: 0865132141 by 25 October 2013.

Yours sincerely

C A Bruwer Snr

P O Box 4
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Tel: (028) 3162888
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VAT No 4380237091

Charel Bruwer Snr
Jerry Avis
Charel Bruwer Jnr
Bernard de Witt

watercourse, measured from the edge of a watercourse, but excluding where such expansion will occur behind the development setback line.
GNR544/43: The expansion of structures in the coastal public property where the development footprint will be increased by more than 50 square metres, excluding such expansions within existing ports or harbours where there would be no increase in the development or footprint or throughput capacity of the port or harbour
GNR544/45: The expansion of facilities in the sea, an estuary, or within the littoral active zone or a.distance.of 100 metres inland of the high tide mark of the sea or estuary whichever is the greater, for (i) fixed or floating jetties and slipways; (ii) tidal pools; (iii) embankments; (iv) rock revetments or stabilizing structures including stabilizing walls (v) buildings by more than 50 square metres; (vi) infrastructure by more than 50 square metres (vii) facilities associated with the arrival and departure of vessels and the handling of cargo; (viii) piers (ix) inter and sub-tidal structures for the entrapment of sand; (x) breakwater structures; (xi) coastal marinas; (xii) coastal harbours or ports (xiii) structures for draining parts of the sea or estuary; (xiv) tunnels; or (xv) underwater channels where such expansion will result in an increase in the development footprint of such facilities, but excluding where such expansion occurs: (a) behind a development setback line; or (b) within existing ports or harbours where there will be no increase in the development footprint or throughput capacity of the port or harbour
GNR546/4: The construction of a road wider than 4 metres with a reserve less than 13,5 metres (d) In Western Cape: (i) in an estuary (ii) all areas outside urban areas; (iii) in urban areas: (aa) areas zoned for use as public open space within urban areas; (bb) areas designated for conservation use in Spatial Development Frameworks adopted by the competent authority, or zoned for a conservation purpose
GNR546/12: The clearance of an area of 300 square metres or more of vegetation where 75% or more of the vegetative cover constitutes indigenous vegetation; (a) within any critically endangered or endangered ecosystem listed in terms of section 52 of the NEMBA or prior to the publication of such a list, within an area that has been identified as critically endangered in the National Spatial Biodiversity Assessment 2004; (b) within critical biodiversity areas identified in bioregional plans; (c) within the littoral active zone or 100 metres inland from high water mark of the sea or an estuary, whichever distance is the greater, excluding where such removal will occur behind the development setback line on erven in urban areas.
GNR546/16: The construction of: (i) jetties exceeding 10 square metres in size; (ii) slipways exceeding 10 square metres in size; (iii) buildings with a footprint exceeding 10 square metres in size; or (iv) infrastructure covering 10 metres or more where such construction occurs within a watercourse or within 32 metres of a watercourse, measured from the edge of a watercourse, excluding where such construction will occur behind the development setback line. In Western Cape: (i) in an estuary; (ii) outside urban areas, in: (aa) A protected area identified in terms of NEMPAA, excluding conservancies; (bb) National Protected Area Expansion Focus areas, (cc) World Heritage Sites; (dd) Sensitive areas as identified in an environmental management framework as contemplated in chapter 5 of the Act and as adopted by the competent authority; (ee) Sites or areas identified in terms of an International Convention; (ff) Critical biodiversity areas or ecosystem service areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans; (gg) Core areas in biosphere reserves; (hh) Areas within 10 kilometres from national parks or world heritage sites or 5 kilometres from any other protected area identified in terms of NEMPAA or from the core area of a biosphere reserve; (ii) Areas seawards of the development setback line or within 1 kilometre from the high-water mark of the sea if no such development setback line is determined.; (iii) Inside urban areas: (aa) Areas zoned for use as public open space; (bb) Areas designated for conservation use in Spatial Development Frameworks adopted by the competent authority or zoned for a conservation purpose; (cc) Areas seawards of the development setback line or within 100 metres of the high water mark where no setback line has been determined.
GNR546/19: The widening of a road by more than 4 metres, or the lengthening of a road by more than 1 kilometre. d) In Western Cape: (i) in an estuary; (ii) all urban areas outside urban areas; (iii) in urban areas: (aa) Areas zoned for use as public open space within urban areas;
(bb) Areas designated for conservation use in Spatial Development Frameworks adopted by the competent authority, or zoned for a conservation purpose, within urban areas.
GNR546/24: The expansion of (a) jetties where the jetty will be expanded by 10 square metres in size or more; (b) slipways where the slipway will be expanded by 10 square metres or more: (c) buildings where the buildings will be expanded by 10 square metres in size; or (d) infrastructure where the infrastructure will be expanded by 10 square metres or more where such construction occurs within a watercourse or within 32 metres of a watercourse, measured from the edge of a watercourse, excluding where such construction will occur behind the development setback line. (d) In Western Cape: (i) in an estuary; (ii) outside urban areas, in: (aa) A protected area identified in terms of NEMPAA, excluding conservancies; (bb) National Protected Area Expansion Strategy Focus areas; (cc) Sensitive areas as identified in an environmental management framework as contemplated in chapter 5 of the Act and as adopted by the competent authority; (dd) Sites or areas identified in terms of an international Convention; (ee) Critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans; (ff) Core areas in biosphere reserves; (gg) Areas within 10 kilometres from national parks or world heritage sires or 5 kilometres from any other protected area identified in terms of NEMPAA, or from the core area of a biosphere reserve; (hh) Areas seawards of the development setback line or within 1 kilometre from the high-water mark of the sea if no such development setback line is determined. (iii) inside urban areas: (aa) Areas zoned for use as public open space; (bb) Areas designated for conservation use in Spatial Development Frameworks adopted by the competent authority or zoned for a conservation purpose.

PROPOSED PROTECTION WORKS AT GROTTO BAY PARKING AREA

The project consists of the proposed Grotto Bay East parking area protection works to repair the damage done during a storm event during August 2012. Due to the natural characteristics of dune formation, the natural outlet for the Klein River estuary was blocked by the dunes. When the Klein River estuary filled with water from the upstream catchment it took a different path of least resistance to breach and the outlet then flowed past the Grotto Bay east parking area. This breach coincided with an extreme offshore storm conditions and spring tides. As a result of these conditions and the position of mouth breaching right against the man-made parking lot embankment scour conditions caused a partial collapse of the bank. Temporary barriers are currently in place to prevent the public or cars approaching too close to the unstable bank of the parking area. In order to find a solution to the problem there are a number of options. The first and quickest, but not a permanent solution would be sloping of the area to remove the dangerous bank to the public and cars, by sloping it to a slope of ~1:2. This would be an emergency

remediation and would require permission to implement this sloping as an emergency measure. The more permanent solutions would consist of sandbag protection where very large geotextile bags are filled with sand from small sand dunes that have formed where the mouth normally breaches and placed on the sloped face of the parking area. These bags weigh more than two tons and placed in overlapping fashion up the slope. Another option is to achieve the same protection effect by means of large rock protection. Rock would have to be sourced and brought into the area and placed in a protective barrier. The last option would be to make use of a concrete barrier to protect the slope of the parking area.

The area that requires protection is ~135 metres long in a curved fashion and there is currently some rubble mix and large concrete blocks with reinforcing material that was used long ago when the parking area was created. The parking area is an important area and one of the few areas where elderly people can park and have a wide view of the beach and sea from the comfort of their vehicles during the winter stormy months. There are also some braai areas that are very popular and used over weekends for by families in a recreational way. This is also one of the few areas along the Hermanus coastline where people can braai in such close proximity to the sea and thus presents a unique ambiance.. An Application Form for the activities was submitted to DEA&DP (Ref No.16/3/1/1/E2/14/2078/13) with application made for exemption from certain provisions required or regulated by NEMA Regulations in terms of Regulation 50 as well as Regulation 10(2)(d) of the EIA Regulations, 2010 (DEA&DP Ref No. 16/3/1/4/E2/14/2079/13). The proposed project will be subjected to the Basic Assessment EIA process.

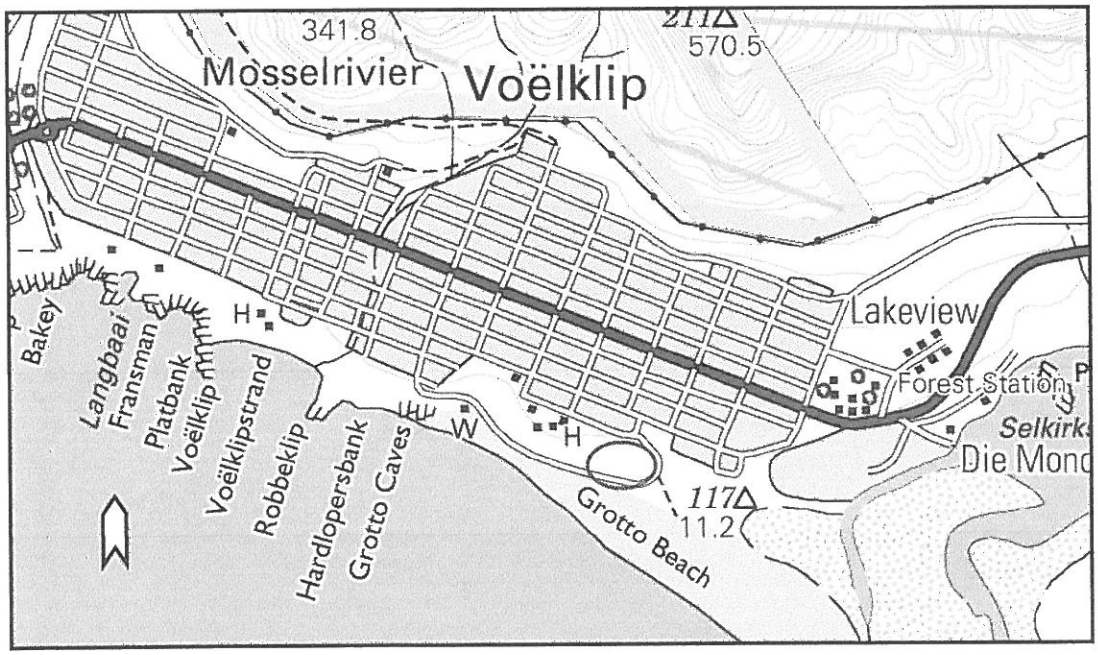
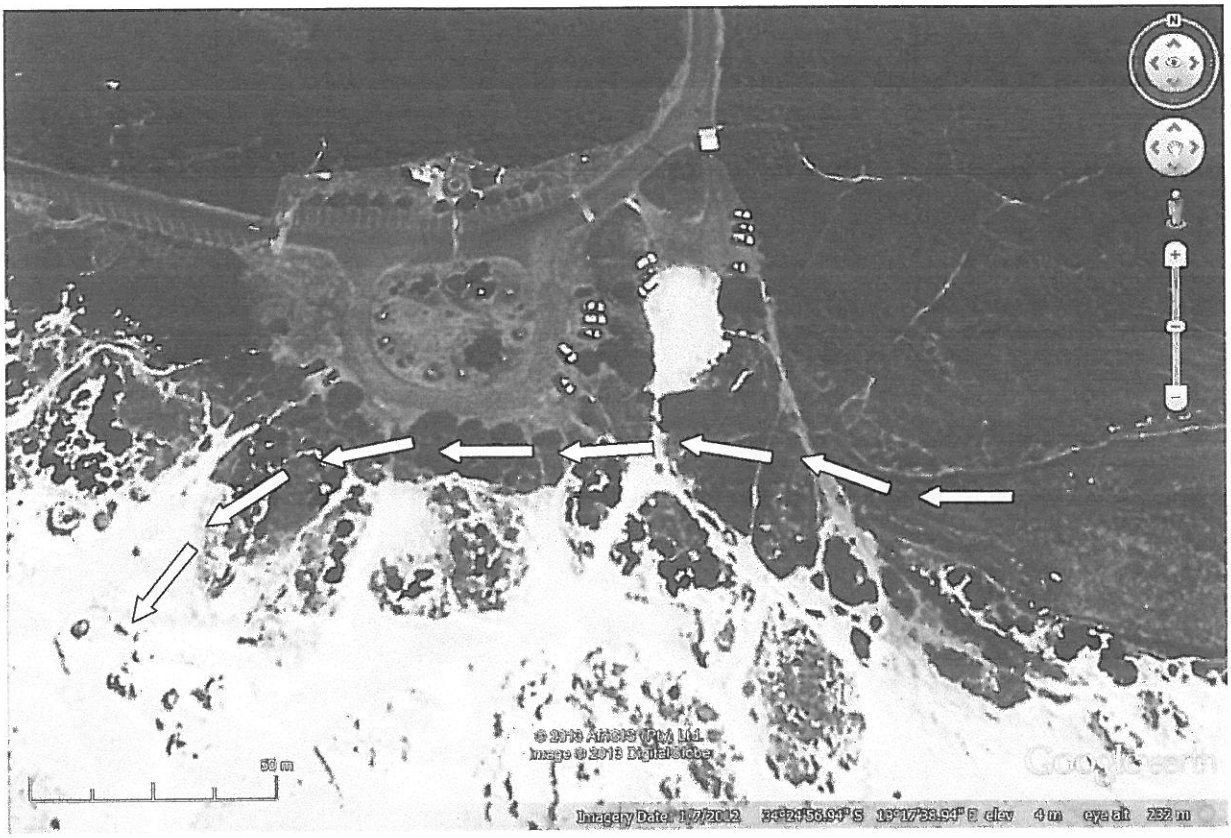


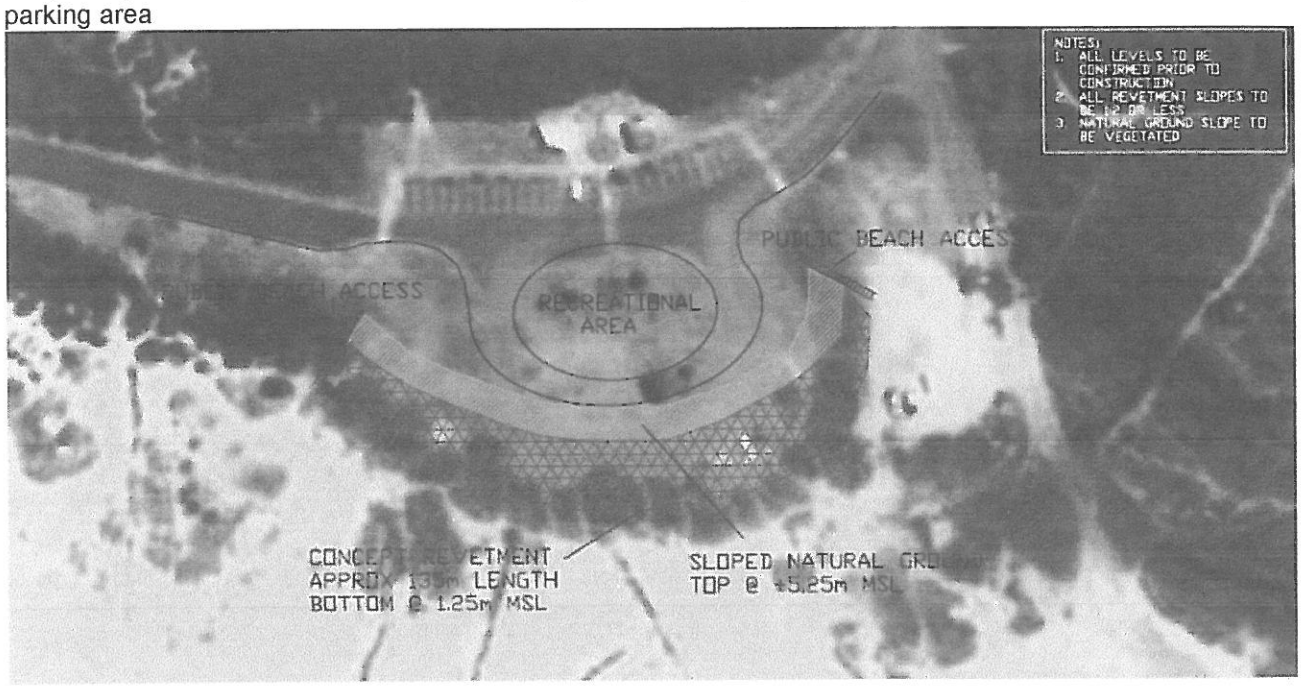
FIGURE 1: Map showing the location at a scale of 1:50000 (3419AD Stanford) of the existing parking area (circle) where the protection works is to be placed at Grotto Bay parking area, Hermanus. The prevailing wind directions are southeast (Oct-Mar) and northwest (Apr-Sep)

AERIAL PHOTO showing the location of the Grotto Bay parking area (marked with the arrow) where the protection works are to be implemented by means of some form of artificial stabilization of the bank of the parking area. Note the old area where the estuary breached that is now blocked by san dunes from where sand will be sourced for the protection and to return the breach area to the original.

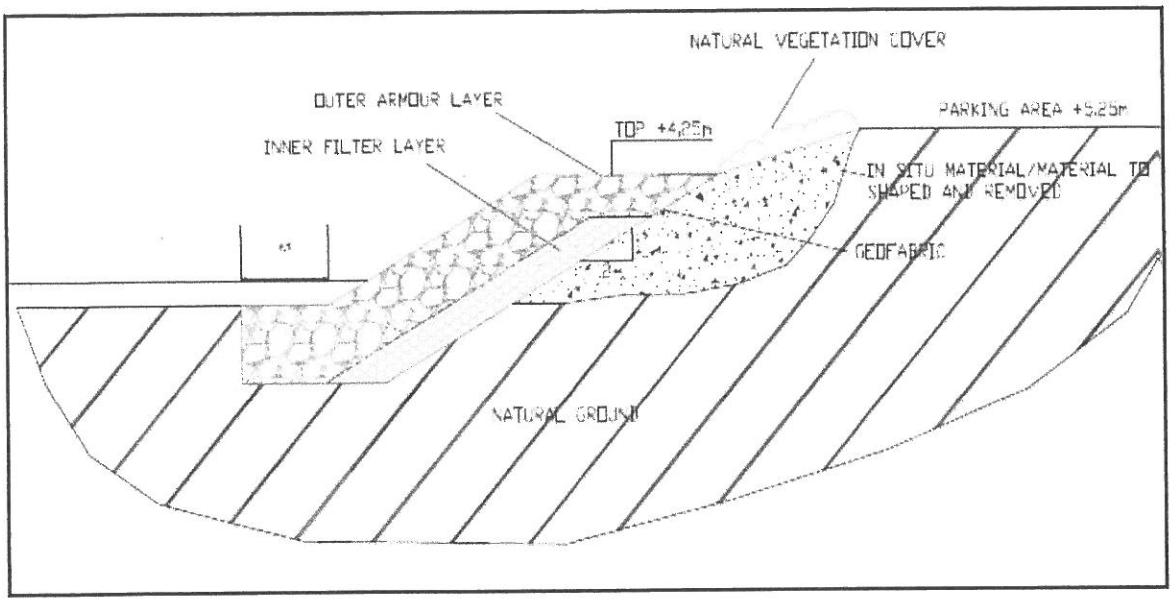


AERIAL PHOTO showing a close up of the Grotto Bay parking area as it looked before the bank damage. The area of the bank indicated (see arrows) washed away due to a combination of high estuary water levels and spring tide that forced the breaching right against the parking area embankment.

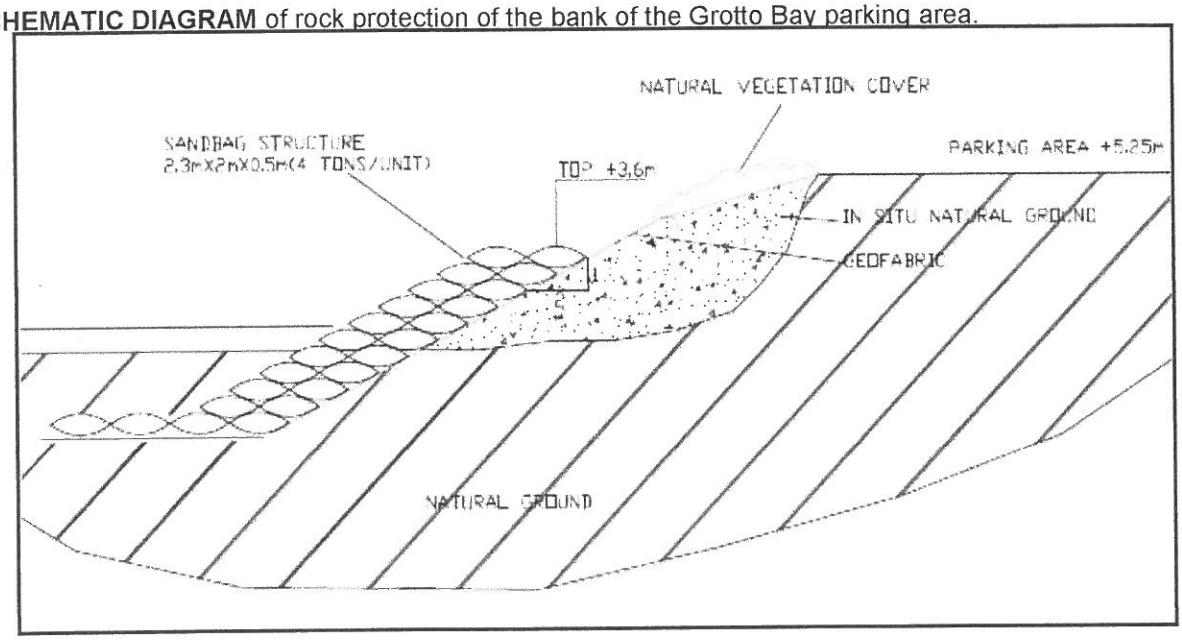
PHOTO on the left is taken from the eastern end of the parking area in an easterly direction showing the scour channel in the estuary. The white patch on the left of the photo is the same as the one in the aerial photo above to the east of the parking area. **PHOTO** on the right is taken from the beach area to the west of the parking area and to the west of the left hand photo, showing the severe scour of the southern bank of the parking area



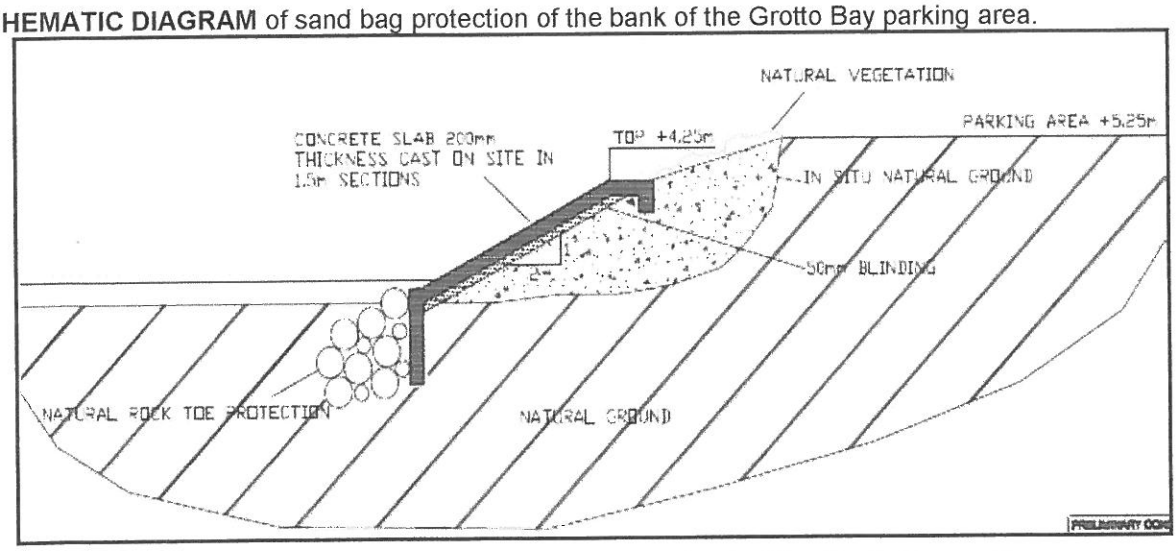
SCHEMATIC PICTURE of the proposed protection of the southern bank of the Grotto Bay parking area.



SCHEMATIC DIAGRAM of rock protection of the bank of the Grotto Bay parking area.



SCHEMATIC DIAGRAM of sand bag protection of the bank of the Grotto Bay parking area.



SCHEMATIC DIAGRAM of a concrete wall protection of the bank of the Grotto Bay parking area.

APPENDIX G

SPECIALIST REPORTS

(NONE)

KLEIN RIVER
Estuary
FORUM

MOUTH MANAGEMENT PLAN FOR THE KLEIN RIVER ESTUARY

1 Introduction

A workshop was held at the Fernkloof Nature Reserve in Hermanus on 4 March 2010 to discuss a number of issues relating to the Klein River Estuary. The development of guidelines for the management of the Klein River Estuary mouth was one of the key items on the agenda.

The workshop was held at the request of the Klein River Estuary Forum (KREF), the body responsible for coordinating the implementation of the estuary management plan, developed as part of the Cape Estuaries Programme. It comprises representatives of:

- All the government agencies that have the necessary jurisdiction to take actions that are necessary
- All civil society organisations with a direct interest in the proper management of the estuarine ecosystems

The workshop was chaired by Prof George Branch of the UCT Zoology Department, and attended by a number of KREF members as well as invited specialists (see Appendix 1 for attendance register).

Following the meeting, the draft mouth management guidelines reached by consensus were circulated to all those invited for comment. The current document takes cognisance of comments received, and represents the final Mouth Management Plan for the Klein River Estuary, subject to review in five years.

1.1 The Klein River Estuary

The Klein River Estuary is a large (1153 ha) estuarine system - popularly known as Hermanus Lagoon or Kleinriviersvlei - situated between the towns of Hermanus and Stanford. The estuary was ranked 5th most important in South Africa in terms of its botanical, fish and bird biodiversity (Turpie & Clark 2007). However, it is negatively impacted by flow reduction (abstraction / impoundment for irrigation and alien infestation in the catchment and riparian areas), increased nutrient loading (waste water treatment works, septic tanks and agricultural return flow and effluent), sedimentation and illegal gill-netting of fish. The Klein River Estuary has therefore been relegated to the C category in terms of its current estuarine health, but allocated a B in terms of the Recommended Ecological category, or future health class, since it is considered worthy of rehabilitation and a priority for conservation (Van Niekerk & Turpie 2010).

1.2 Artificial breaching background

Artificial breaching of the Klein River Estuary dates back to at least the 1860s (Coetzee & Pool 1986, cited in De Decker 1989), when nets were set in the lagoon's bays to catch trapped fish. Following a CSIR study (CSIR 1988), a breaching policy was implemented, according to which the mouth was opened when the water level reached +2.1 m (MSL).

However, breaching at low levels results in inadequate scouring of the estuary, causing sediment build-up in the estuary and mouth closure shortly after breaching. Increased sedimentation also leads to insufficient flushing of organic material. A decision was therefore taken that 1996 would be the final year of artificial breaching. After monitoring the effects of high water levels during mouth breaching in 1996 and 1997 (CSIR reports ENV-S-C 97016 and 98031), the CSIR found that no significant damage occurred at the water level of +2,66 m MSL that resulted in natural mouth breaching on 2 July 1997. The motivation to breach in response to pressure from riparian landowners was therefore nullified. The maximum outflow of at least 500 m^3/s was 50% higher than that observed in previous years, and was estimated to be the same order of magnitude as that during a 1:50 year flood.

From 1997, the management approach aimed at natural breaching of the estuary during winter. Although this was supported in terms of water level, the position of the mouth remained a contentious issue. As managing authority at the time, the then Cape Nature Conservation hosted a specialist workshop at Jonkershoek in May 1999. Its main objective was to determine a future management strategy for the estuary, with the development of a short term breaching policy - which over the long term should promote and ensure the maintenance of the associated ecosystems and ecological processes - as a secondary objective.

A set of scenario-based draft policy guidelines were formulated at the workshop, on the preliminary assumption that the present catchment runoff had not been drastically changed from its natural mean annual runoff (MAR). Scenario 1 allowed for natural breaching, Scenario 2 for artificial breaching at the lowest point in the berm only if sustained high water levels posed an unacceptably high risk to property as well as ecological processes, while Scenario 3 allowed for artificial breaching at the lowest point in the berm in the event of water levels above 1.8 m MSL and a closed mouth during early to mid-summer resulting in inundated saltmarshes, algal blooms, fish deaths and unacceptably high bacteriological counts.

The workshop did not address breaching details such as the time of day, tidal cycle and depth of trench, and it was agreed that the guidelines should be revised if additional information came to light.

After monitoring the effects of mouth breachings in 1999 and 2000, the CSIR revised their recommendations (see Appendix 2). These served as the operational guidelines until the workshop in March 2010.

Modelling studies conducted on the September 2001 breaching at +2.8 m MSL confirmed that breaching at higher water levels increases the effectiveness of flushing, as the discharge through the mouth increases significantly at higher water levels. Flushing towards the middle or south-east side of the berm was found to be much more effective than towards the north-west side (Beck & Basson 2008).

1.3 The need for artificial breaching

In the past decade it has become clear that mean annual runoff (MAR) into the Klein River Estuary has been reduced by an estimated 25% through abstraction, water impoundment and alien infestation in the catchment area. Dampening of flood peaks and reduced base flows are insufficient to scour the estuary and prevent marine sediments from blocking the

mouth, resulting in more frequent and sustained periods of mouth closure of temporarily closed estuaries.

The Klein River Estuary is still able to breach naturally given sufficient rainfall, although this may not occur in dry years. Nevertheless, given the reduction in MAR and the changes to sediment dynamics caused by stabilisation of the sand dune barrier, artificial breaching may be necessary in order to maintain the ecological functioning of the estuary and its value as a nursery area for fish.

However, this should be done according to a scientifically defensible mouth management plan. While the plan presented here is based on scientific input, a Reserve Determination Study would increase understanding of the estuary's ecological water requirements. The need for such a study will be motivated to the Department of Water Affairs on the basis of the Klein River estuary's national importance from a biodiversity perspective.

2 Mouth management plan for the period 2010-2015

2.1 Purpose

Manage the estuary mouth as an integral part of an overall estuary management plan that will maintain an ecological assessment rating consistent with a B ecological category (Turpie & Clark 2007; Van Niekerk & Turpie 2010).

2.2 Preferred Mouth Breaching

Natural breaching at water levels of +2.9 m to 3.1 m above MSL is preferred with no or minimal interference. Breaches at this level result in the most effective scouring of sediment build-up.

It is recommended that Cape Nature police the berm at times when high water levels may tempt unauthorised breaching to ensure that this does not occur.

2.3 Artificial Mouth Breaching

2.3.1 Authority to artificially breach

According to the new Environmental Impact Assessment (EIA) Regulations promulgated on 18 June 2010 in terms of the National Environmental Management Act 1998, the following activity may not commence without an environmental authorisation from the competent authority.

"The infilling or depositing of any material of more than 5 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock from

(i) a watercourse;
(ii) the sea;
(iii) the seashore;

(iv) the littoral active zone, an estuary or a distance of 100 metres inland of the high-water mark of the sea or an estuary, whichever distance is the greater

but excluding where such infilling, depositing, dredging, excavation, removal or moving

(i) is for maintenance purposes undertaken in accordance with a management plan agreed to by the relevant environmental authority; or

(ii) occurs behind the development setback line."

[Listing Notice 1, Activity Number 18]

Application for special dispensation to implement the breaching plan for a period of five years (at which time it will be subject to specialist review) is hereby made to DEA&DP in terms of the need for ecosystem maintenance.

2.3.2 Deciding to artificially breach

The decision to artificially breach will be made by a sub-committee comprising the KREF Chairperson, the Overstrand Estuary Management Coordinator, the Overstrand Municipality's Environmental Manager and the Cape Nature: Overberg Business Unit Manager following consultation with at least two members of a team of specialists comprising Lara van Niekerk (CSIR: Estuarine Hydrodynamics and Management), Steve Lamberth (DAFF: Inshore Fisheries Research) and Alan Boyd / Ayanda Matoti (DWEA: Estuaries Management).

Data on water level, berm height, salinity, as well as water quality parameters where feasible, will be collated by the Overstrand Estuary Management Coordinator in conjunction with Cape Nature and the specialist team.

2.3.3 Implementing artificial breaching

Once the KREF subcommittee has decided that an artificial breach must occur, the manager of Cape Nature, Overberg region, shall be responsible for overseeing the breaching activities.

2.3.4 Invalid reasons for artificial breaching

Artificial breaching will not be considered to:

- Prevent water inundation of low-lying private or public properties, or
- Flush polluted water out of the estuary (which will pollute the seashore).

2.3.5 Minimum level at which artificial breaching may be considered

In the absence of "crisis" conditions (as deemed by the specialist team), artificial breaching must not be contemplated at water levels less than 2.6 m above msl. Higher levels are preferred.

2.3.6 Timing of artificial breaching

Breach annually if natural breaching is considered to be unlikely:

- only between 1 August to end October
- preferably 3-4 days before spring tide, just after a high tide that occurs during daylight hours (to prevent high waves from reclosing the opening), allowing the first water to run out over night.

2.3.7 Position of artificial breach

At the lowest position of the berm, opposite the channel (these almost coincide), somewhere near the middle of the mouth.

2.3.8 Method

A deep, relatively wide trench to be dug.

REFERENCES:

Beck JS and Basson GR (2008). Klein River Estuary (South Africa): 2D numerical modelling of estuary breaching. *Water SA* 34 (1): 33-38.

Coetzee, DJ and Pool, RC 1986. Fluctuations in some physico-chemical conditions in Kleinriviersvlei, a south-western Cape coastal lagoon. *Bontebok* 5: 24-30.

CSIR 1988. Dynamics of the Klein River with reference to the artificial breaching of the estuary mouth. CSIR Contract Report EMA – C 8891. 1v.

De Decker, HP 1989. Estuaries of the Cape: Part II: Synopses of available information on individual systems. Rep. no. 40 Klein (CSW16.) Heydorn, AEF and Morant PD (Eds). Stellenbosch, CSIR Research Report 439.

Huizinga P, Van Niekerk L and Withers A (1996) Klein River estuary: the effects of high water levels during mouth breaching in 1996 (Confidential). CSIR report: ENV-S-C 97016.

Huizinga P, Van Niekerk L, Withers A. (1998) Klein River estuary: The effects of high water levels during mouth breaching in 1997. CSIR report ENV/S-C 98031.

Turpie, JK and Clark, BM 2007. Development of a conservation plan for temperate South African estuaries on the basis of biodiversity importance, ecosystem health and economic costs and benefits. Report to the C.A.P.E. Estuaries Management Programme, CapeNature.

Van Niekerk, L and Turpie JK (eds) 2010. National Biodiversity Assessment 2010: Estuaries Component. Draft report to South African National Biodiversity Institute.

APPENDIX 1

Delegates at the Klein River Estuary workshop – 4 March 2010

Prof George Branch (Chair)	UCT Zoology Department (retired)
Rob Fryer	Overstrand Conservation Foundation (KREF Chairman)
Megan Campbell	Overstrand Conservation Foundation (PA to KREF Chairman)
Martin Ranger	KREF Sub-Committee
Lee Burman	KREF Sub-Committee
Elspeth Ivey	KREF Sub-Committee
Hannes Fehrsen	KREF Sub-Committee
Nicholas Clark	KREF Sub-Committee
Pierre Hugo	Abagold (mariculture)
Dr Vic Hamilton-Attwell	Environmental Consultant (water pollution study)
Neil Fairall	Environmental scientist (retired)
Ed Lucas	Local Historical Estuary Knowledge / Data
Meaghan McCord	Shark Conservancy
Piet Huizenga	CSIR (Coastal Research Engineer)
Lara van Niekerk	CSIR (Estuarine Hydrodynamics & Management)
Neville Dreyer	Overberg District Municipality (Water quality monitoring)
Melt Carstens	Overberg District Municipality (Health Dept)
Willemien Swanepoel	Overstrand Municipality (Environmental Management)
Penelope Aplon	Overstrand Municipality (Environmental Management)
Benjamin Kondokter	Overstrand Municipality (Field Ranger)
Alan Berry	Ward 3 Councillor, Overstrand Municipality
Sunette Ruch	DEA & DP (Pollution Prevention and Policy_
Makwarela Matshili	DEA & DP (Coastal management)
Charl van Rooyen	Provincial Dept of Agriculture (Landcare)
Andrae Marais	Cape Nature (Conservation services)
Tierck Hoekstra	Cape Nature (Overberg Business Unit)
Pierre de Villiers	Cape Nature (Estuary Management)
Dr Alan Boyd	DEAT: Marine & Coastal Management (estuary management)
Dr Steve Lamberth	DEAT: Marine & Coastal Management (inshore fisheries)
Corne Erasmus	DEAT: Marine & Coastal Management (research technician)
John Roberts	Dept Water Affairs
Gerhard Cilliers	Dept Water Affairs
Samantha Adey	Breede Overberg Catchment Management Agency (BOCMA)
Patrick van Coller	Breede Overberg Catchment Management Agency (BOCMA)
* Doug Harebottle	Animal Demography Unit (bird specialist)

* Not present at meeting but subsequently submitted report:

EXTRACT FROM:

KLEIN RIVER ESTUARY THE EFFECTS OF MOUTH BREACHINGS IN 1999 and 2000

Submitted to:

GREATER HERMANUS MUNICIPALITY

Prepared by:

CSIR

Recommendations for the breaching of the mouth:

A number of recommendations, with brief explanations, are presented on aspects of breaching of the estuary mouth.

1. The water level in the estuary should be as high as possible and if possible breaching should occur naturally.

The reason is that as much sediments as possible should be flushed from the mouth and from the estuary.

The potential of flushing of sediments increases exponentially with the increase of outflow velocities after breaching and the outflow velocities also increase with the increase in water levels before breaching.

Natural breachings of the mouth of the Klein River would normally occur at water levels of between + 2,8 and + 3,0 m MSL. However, often for more than hundred years the mouth has been breached at too low water levels. This has resulted in considerable sedimentation.

2. The mouth of an estuary should be breached as late in winter and/or spring as possible.

The first reason is that an estuary fulfils a major ecological as a nursery for marine fish. Migration of juvenile fish into an estuary at the South African coast mainly occurs during the end of spring and during summer and this migration can only take place when the mouth is open. The management policy should therefore be aimed at creating open mouth condition during this period.

The second reason is that high waves occur more often in winter than in summer along the South African coast. This is the main reason for mouth closure. High waves, causing turbulence, are indirectly also causing the influx of considerable amounts of marine sediments into the estuary. It is therefore beneficial to keep the mouth closed, if possible, during autumn and winter and to have it open in spring and summer.

The third reason is that water quality problems are more likely to develop when the mouth is closed during spring and summer, when the temperatures are higher and when during the hollidays the loading of pollutants is also increased.

3. The mouth of the estuary should ideally be breached three or four days before springtide.

The reason is that this ensures good additional flushing during the following springtide.

This recommendation is less relevant for larger systems such as the Klein Estuary near Hermanus, where the mouth normally stays open for several months after the breaching. For the Klein River guideline 1 (above) is more relevant

4. The position at which the mouth should be breached.

Strong controversy exists about the location, where mouth breaching should take place. One group is strongly in favour of breachings at the south-eastern end of the berm. Another group favours breachings at the north-western end.

Old maps indicate that mouth breaching under natural conditions could take place anywhere along the berm. This was most likely determined by the lowest spot in the berm.

A breaching at the north-western end of the berm at Grotto beach results in a convined channel for both the ebb and the flood tidal flows. Ideally space should be available to allow separate ebb and flood tidal channels to develop.

In July 1997 a decision had been made that the mouth should be breached at the lowest position in the berm. This was at Grotto Beach and because of the expected interference of ebb and flood tidal channels the mouth was breached a few hundred metres further to the south-east. After the breaching it appeared that interference of the ebb and flood tidal channels still occurred. This problem will be reduced at breachings further to the south-east.

5 If possible, not a small trench, but a deeper and wider trench should be excavated before breaching.

A considerable amount of water is sometimes used to flush a small and narrow trench open to a medium sized trench. A larger initial trench will result in higher flow velocities and in more sediments flushed out to the sea.

This guideline is also more relevant at a small estuary such as the Great Brak, where a limited volume of water is available for flushing, than at a large estuary such as that of the Klein River at Hermanus.

6. The actual moment of breaching during the tidal cycle is at high tide or as close after high tide as possible, waves permitting. If it is unlikely that waves will interfere at high tide, then breaching can even be undertaken up to two hours earlier.

The high outflow after breaching causing the scouring lasts over several hours and sometimes more than a tidal cycle. The maximum outflow normally occurs approximately 4 to 8 hours after a breaching and the flow velocities will be increased at a higher difference in water levels between the estuary and the sea.

High waves can sometimes interfere with the breaching process at high tide and shortly after high tide. It is therefore important to watch the effects of the waves in front of the mouth. The mouth can be breached as soon as it is considered that the waves will not interfere any more in a significant way.

The breaching of a mouth can become difficult and sometimes even impossible when the waves are very high. In those conditions and if direct problems because of flooding do not exist, it may be better to postpone the breaching by a day.

7. Additional dredging to enhance the effect of the breaching will have a considerable impact on the ecology and will be a great expense. It should therefore only be undertaken as a last resort, if everything else has failed.

Finally, these recommendations are made for circumstances when the opportunity exists to apply them, but in case of emergencies mouth breachings should be undertaken in the quickest way possible.

Project Management International

ELEMENT Consulting Engineers

A FIFTH DIMENSION TO ENGINEERING

GROTTO BAY EAST PARKING AREA
PROTECTION WORKS
GROTTO BEACH, HERMANUS

CONCEPT & PRELIMINARY ENGINEERING REPORT

JUNE 2013

REF: 13-010-PMI-RPT-001 REV A

Project Name: Grotto Bay East Parking Area Protection Works

Project Location: Grotto Beach, Hermanus

Employer: Element Consulting Engineers

Reference: 13-010-PMI-RPT-001 REV A

Review and Approval Record of the Present Document

Action	Name	Function	Signature	Date
Approved by	Koen De Grave	Director		
Checked by	Jacobus le Roux	Director		04/07/2013
Prepared by	Adriaan Roets	Engineer		

Revision Status

Rev.	Date	Description
A	14/06/2013	For Comment
B		
C		
D		

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TABLE OF FIGURES

1 INTRODUCTION

In February 2013, Project Management International (PMI) was contacted by Element Consulting Engineers to assist in the engineering services related to the protection of the Grotto Bay east recreational and parking area against the meandering effects of the Klein River estuary mouth, as well as wave action during extreme offshore conditions.

The site is located to the east of the main Hermanus Grotto beach. Refer to the image below.

Figure 1: Location of Grotto Bay east parking area

As a result of the natural dynamic characteristics of dune formation, the natural outlet for the Klein River estuary was blocked by the formation of dunes. This resulted in the Klein River following an alternative path of least resistance during the last breach and the river then flowed past the Grotto Bay east parking area. This breach in August 2012 coincided with extreme offshore conditions and spring tides.

Figure 2: Meandering Klein River estuary

During high rainfall and open river mouth conditions (breach condition), the flow in the estuary would erode the banks of the recreational area. Additionally, high water levels would provide a platform for marine processes (waves and tides) to gain access to the parking areas, further contributing to erosion.

Figure 3: Eroded banks of the parking area (April 2013)

Figure 4: One day after mouth opening (August 2012)

As a result of these conditions, recent scouring of the embankment on which the parking area is located has occurred. Temporary barriers are currently in place to prevent the public access and possible vehicular damage as the eroded face next to the recreational and parking area is creating an unsafe and unstable environment.

2 SCOPE OF WORK

The following Scope of Works and Methodology was followed to determine potential suitable solutions to repair the erosion and prevent future on-going damage during flood and storm conditions:

- Site visit and data gathering
- Determine appropriate design criteria; likely water levels, design wave conditions, flood condition etc.
- Determine a number of conceptual solutions
- Consultation with Overstrand and KZN Municipalities
- Evaluate the concepts based on budget, environmental constraints and aesthetical considerations
- Discuss and agree with the client the most suitable conceptual solution
- Complete preliminary engineering

Additionally to the Scope of Works, PMI prepared additional concepts as well as conceptual parking and recreational layout sketches.

3 DESIGN CRITERIA

3.1 Wave height

Ideally a wave refraction model should be developed to accurately determine the expected wave height at location. Due to the size of the project and budget constraints this could not be done. PMI used the following method to determine the expected wave height at location.

We determined the wave height at location using the Battjes/Janssen method of energy loss during the breaking process.

1:years	Offshore Slangkop (m)	Expected wave at location(m)	Expected wave height at structure toe(m)
1:5	10.4	3.551	1.8
1:10	11.2	3.553	2.2
1:30	12.1	4.157	2.5

Furthermore, the unpredictable breaching positions and river dimensions during open river conditions and unavailability of actual current measurements resulted in educated estimated desktop calculations without numerical modelling which had to be used for preliminary design.

3.2 Storm surge level

From educated calculations it was estimated that a storm surge level of 0.4m would be incorporated into the design. This would be maximum circumstances corresponding to storm winds. Water levels will be regulated by the lowest point of the sand bank that is blocking the outflow of the Klein River into the sea, which from the survey is in the order of 1.1-1.3m MSL which is incorporated in the revetment design.

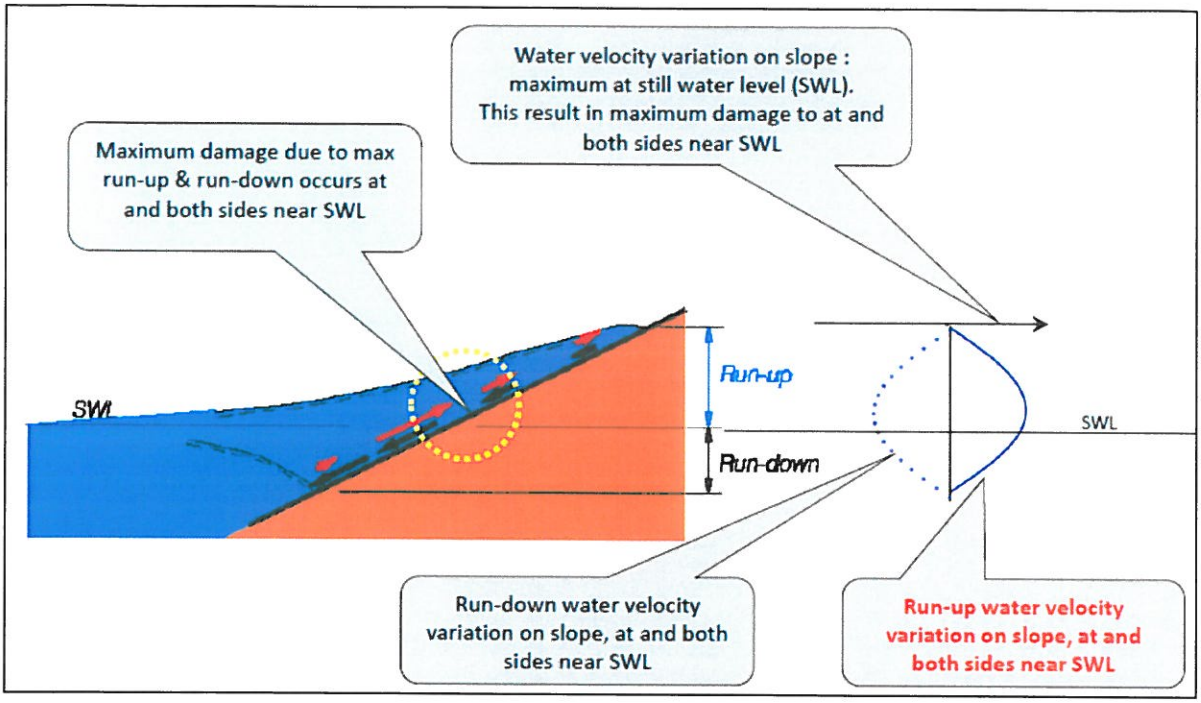


Figure 5: Wave run-up and run down due to storm surge and raised water levels

Represented in the table below is the tabular representation of incorporating the storm effects as described in the figure five above. All water levels were obtained from the South African Navy Hydrographic Office (SANHO).

TABLE 1: Calculated levels relative to MSL	
Level Name	**Meters above MSL(m)**
Possible flood/storm level	+2.8
Highest Astronomical Tide (HAT)	+1.27
Current sand level	+1.25
Mean Sea Level (MSL)	0
Mean Low Water Spring (MLWS)	-0.53
Chart Datum (CD)	-0.8

For the preliminary design phase, the possible flood/storm level was estimated to be +2.8m above MSL. This was deduced from historical data and video footage of severe storm events. For the detailed design phase of the project this level will be verified.

4 DATA GATHERED

The following data gathering exercises were completed during the assignment:

Site Visits

- Initial site visit, 6th February 2013
- Site visit with Klein River Mouth Management Group, 23rd April 2013
- Final visit, 27th May 2013

Meetings

- Introduction meeting, Overstrand
- Klein River Estuary Mouth Management Workshop, 23rd April 2013
- Presentation meeting, Overstrand

Reports

- Report from SSI Set back lines for the Overstrand district, March 2012

Surveys

- Rene Pesch (mailto:rapsurv@iafrica.com) conducted the topographic survey of the site and surrounding areas

5 OPTIONS CONSIDERED

The following options were considered:

- Option 1: Rock protection
- Option 2: Sandbag protection
- Option 3: Concrete protection
- Option 4: Sloping in-situ material

The options are further discussed in the sections below.

5.1 Option 1: Rock Protection

Option 1 consists of a typical armour rock protection. It is anticipated that the rock layers will be as follows:

- Outside armour - 800 – 1200kg boulders

- Filter layer - 10 – 100 kg rock
- Placed on a geotextile

Based on the results represented in **Table 2**, we have based our design on the 1.8m to 2.2m incoming significant wave heights encountered at the toe of the structure. Although the significant wave height due to offshore conditions (Slangkop Data) is calculated to be in the range of 3.5m, it is estimated that the wave height carried over the sand bank, between the sea and the river during breaching, will be in the order of 1.8m - 2.2m. This wave height region (1.8m - 2.2m) will thus be the incoming wave height encountered at the toe of the newly constructed revetment. This is still a conservative approach in terms of the incident waves which will be encountered by the structure.

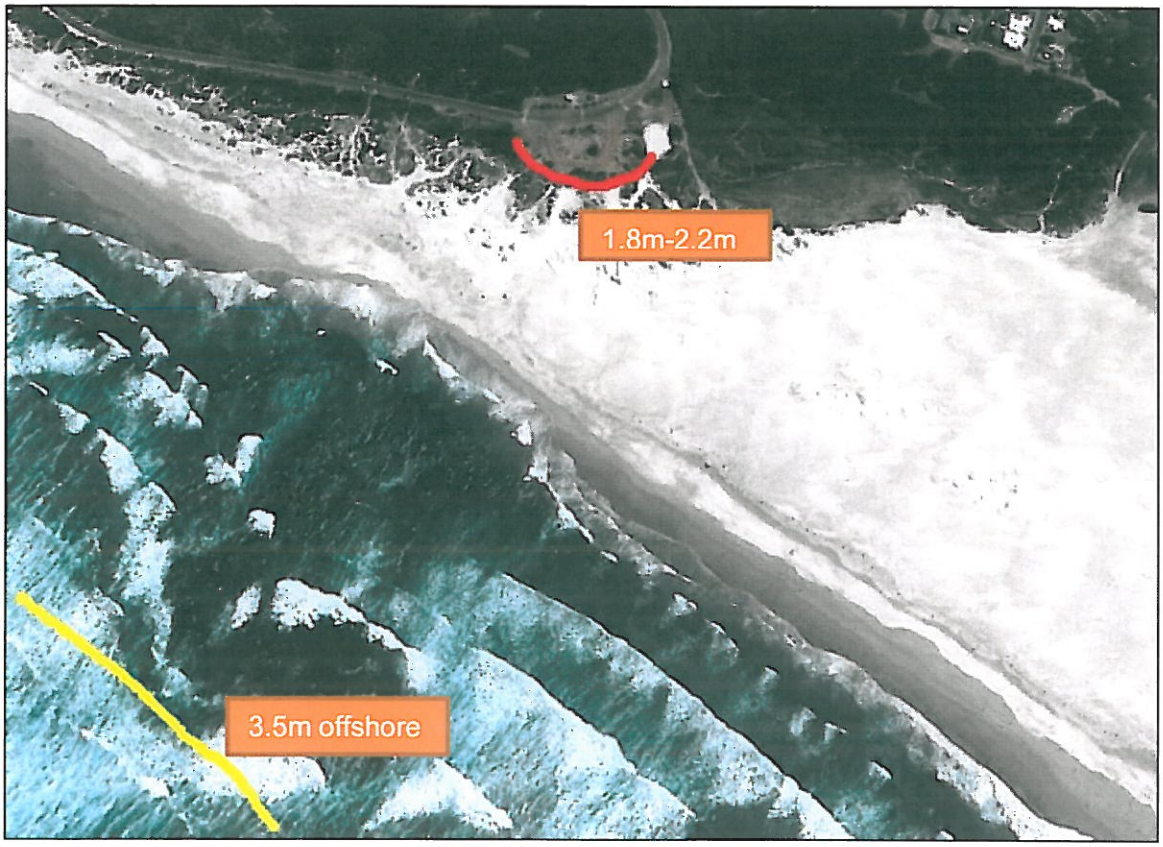


Figure 6: Relative Hs

This conservative approach ensures that the preliminary concepts can absorb storms with larger return periods. Design is based on a 1:10 year return period, but 1:20 year effects is still within the design limits of the structures.

Rock size determination:

TABLE 2: Rock size calculations

Return Period	1:1	1:5	1:10	1:30	1:50	1:100
Hmo(offshore wave height)	9.1	10.4	11.2	12.1	12.6	13.2
Tp	14	14	14	14	14	14
Lo(m)	305.76	305.76	305.76	305.76	305.76	305.76
Hs(m)	3.549	3.551	3.553	4.157	4.158	4.158
M50(kg)	**8181.746**	**8201.961**	**8217.146**	**14461.82**	**14463.35**	**14465.85**
Smaller incoming waves						
Hs toe(m)	1.500	1.800	2.200	2.500	3.000	3.549
M50(kg)	**368.4622**	**710.3059**	**1462.804**	**2317.653**	**4467.874**	**8181.746**

Assumptions:

- Seawater density = 1025 kg/m³
- Rock density = 2650 kg/m³
- Two rock layers in the rock armour layer
- Quarry stone is 'rough angular'
- 'Intermediate damage' criteria, Sd =5
- Notional permeability coefficient, P = 0.4
- Number of wave in the design storm, Nz = 7500
- Tm = 0.82Tp
- Use no partial safety factors.
- Surging breakers

The incident wave on the structure is described in **Figure 7**. From calculations it was found that "surging breakers" will be the form of the incoming waves. This was verified by historical video footage material showing a "rolling" breaker hitting the current revetment during storm breaching periods.

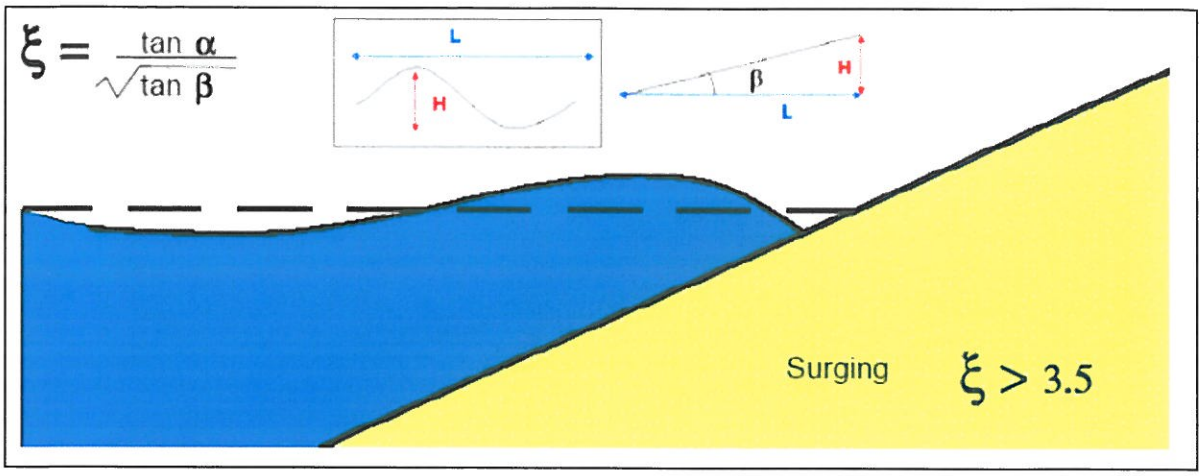


Figure 7: Surging breaker

For the calculation of the rock armour sizes, the Hudson formula for two layer rock armour (non-overtopping) was compared to Van der Meer's formula for two layer rock armour. As a result of the over compensation of Hudson it was decided to use Van der Meer's formula which incorporates more factors e.g. porosity, number of waves etc. Below is a comparison of the two:

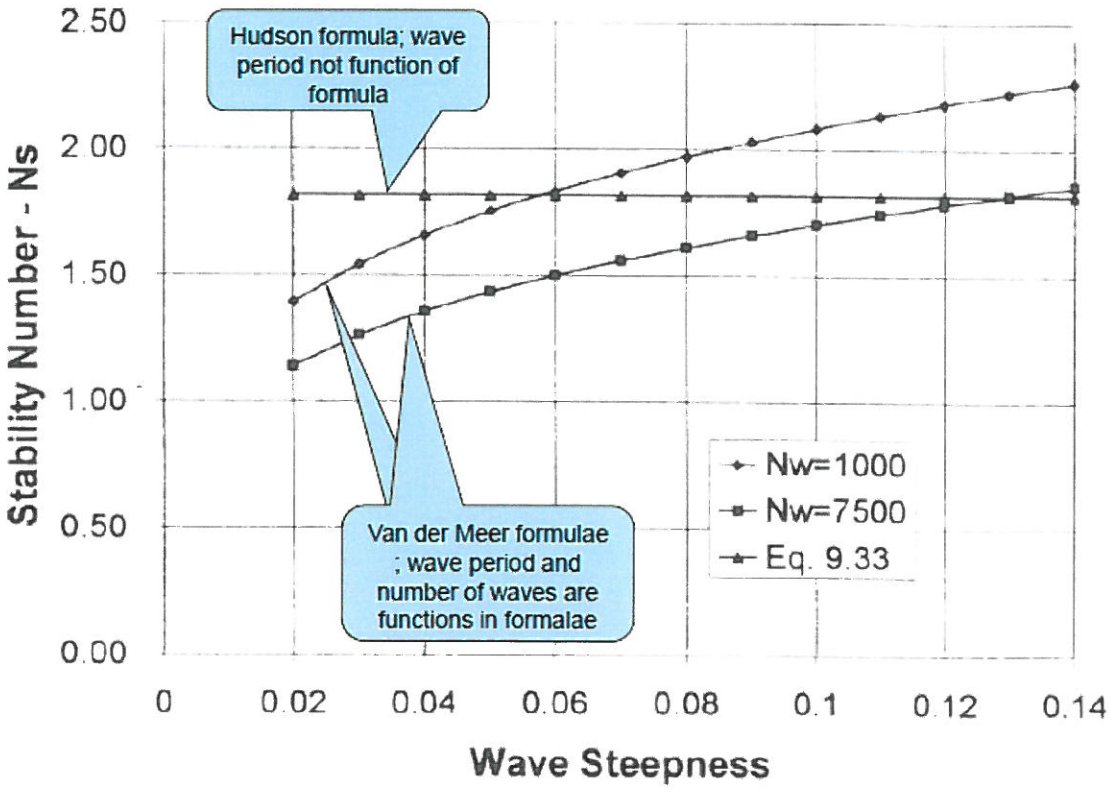


Figure 8: Comparison between Hudson and Van der Meer

Based on the information continued in this section, the prelimanary design concept will be as shown in **Figure 9**. An example of the final product is shown in **Figure 10**.

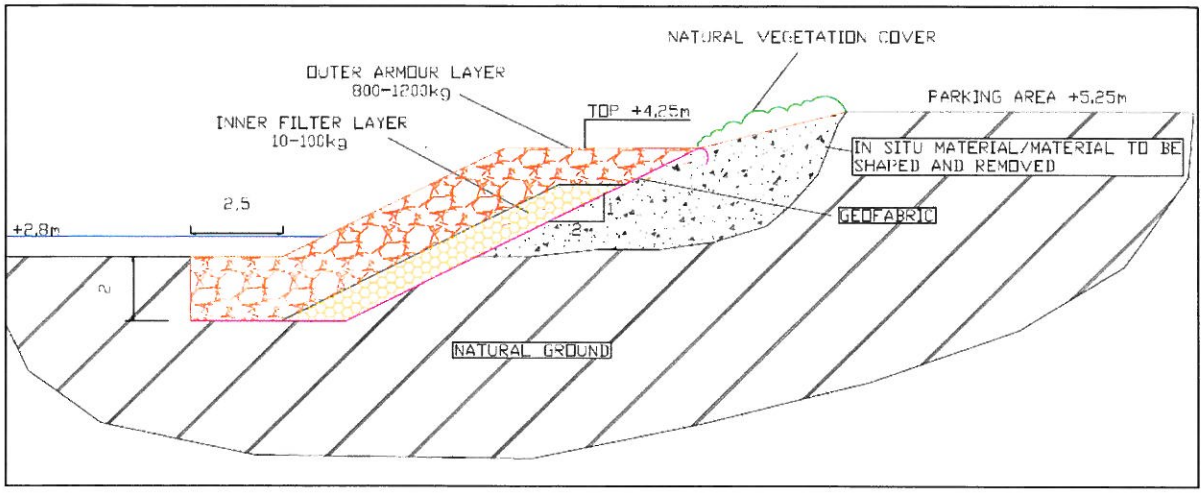


Figure 9: Option 1: Rock protection

Figure 10: Rock protection Ghana

5.2 Option 2: Sand Bag Option

This sand bag option 2 consists of a double 4 ton sand bag layer, placed on a geotextile at a slope of 1 in 2. After research and discussions with KZN Municipality this options seems to be a very attractive option, mainly based on the following considerations:

- Provide a soft, aesthetically pleasing finish
- Use in-situ sand infill, thus minimising the use of imported materials

- Are easily covered by sand & indigenous vegetation
- Eliminate the use of rock materials that may endanger bathers
- May relax environmental restrictions & application time constraints
- Are the same density of beach sand, so do not settle
- Flexible and nest into each other
- Can be removed if not effective

The preliminary design for this option is based on incident wave heights calculated and represented in **Table 2**. The preliminary design is shown in **Figure 11**. An example of the final product is shown in **Figure 12**.

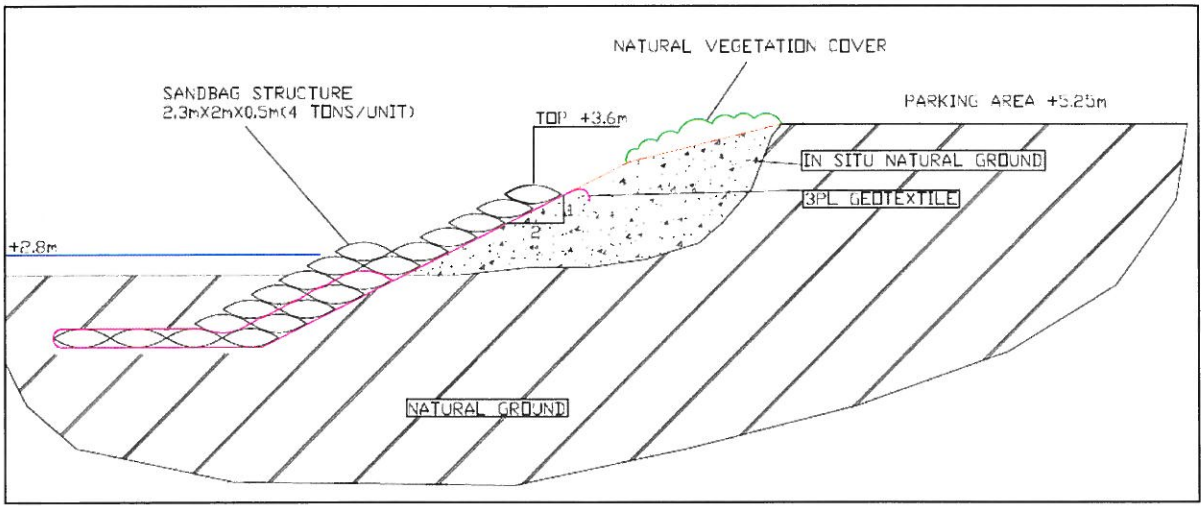


Figure 11: Typical section sand bag option

Figure 12: Shrimp Lane Ballito (note the vegetation on the sandbag slopes)

5.3 Option 3: Concrete Slab

The concrete slab option to provide protection for the erosion consists of the following:

- 50mm blinding concrete
- 2m deep cut-off wall
- 200mm slope concrete section
- Rock protection against scour

The preliminary design is based on incident wave heights calculated and represented in **Table 2**. The preliminary design concept for this option is shown in **Figure 13**. An example of the final product is shown in **Figure 14**.

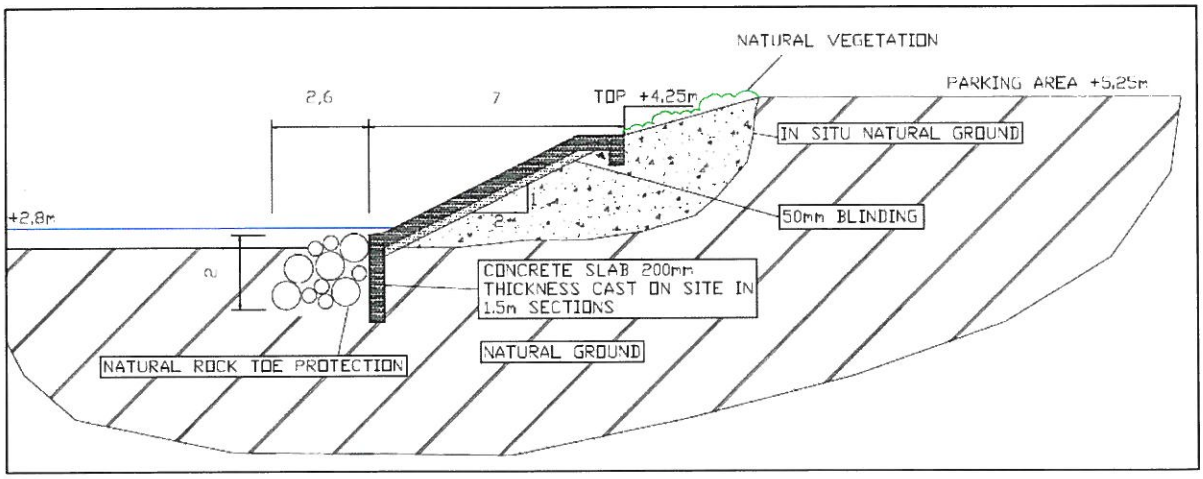


Figure 13: Typical section concrete option

Figure 14: Concrete protection, Hermanus beach

This option is not the preferred option due to the following:

- Hard solution
- Difficult to remove
- Environmentally not sensitive
- Difficult to construct
- Expected high construction costs
- Expected settlement issues and cracking

5.4 Option 4: Sloping

This option is presented as an interim low budget solution. It should be noted that this is not a permanent solution and damage can be expected during extreme events. Nevertheless, due to the Overstrand budget constraints, this options needs to be considered as a temporary solution to create a safe and public friendly solution before the onset of the busy holiday periods.

The solution consists of:

- Removal of excess material
- Sloping of the bank on a 1 in 2 slope
- Budget permitting - planting and seeding/vegetation of the slope

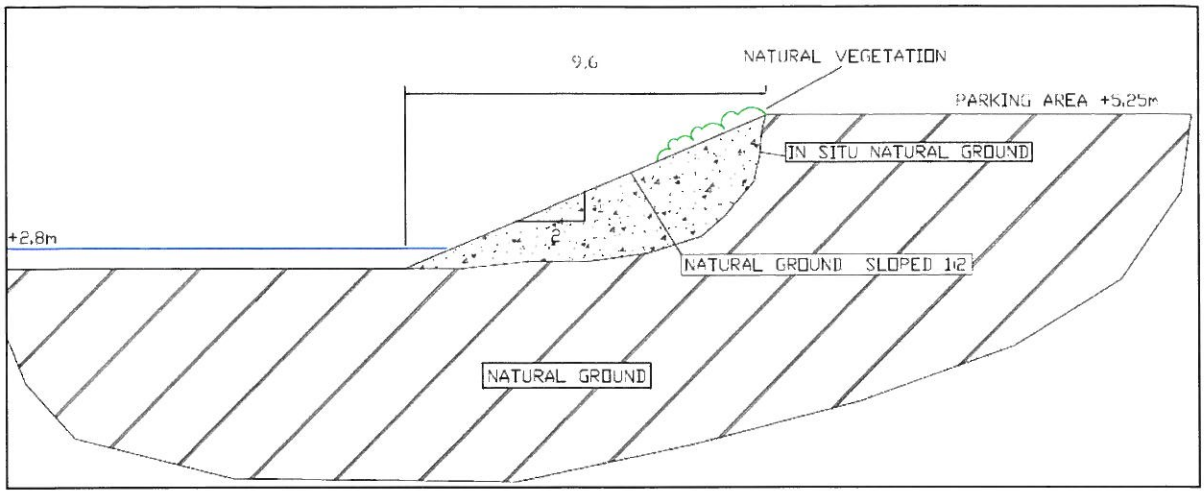


Figure 15: Typical section natural slope

6 PRELIMINARY BUDGETS

The following tables summarize the preliminary budgets for the individual options. It must be noted that these prices were based on preliminary quantity estimates and will be adjusted during the detailed design phase.

The preliminary design costs have been calculated per Government Gazette for 2012. The already completed preliminary engineering costs have deducted from the final estimated budget at a rate of 25%. Final budget prices are excluding VAT.

Supervision will include 1-2 site visits per week and includes all expenses related to supervision.

TABLE 3: Preliminary Budget for Option 1 – Rock Protection

Hermanus/Grotto parking area protection works Bill of Quantities					
Item	Description	Unit	Qty	Rate	Amount
1	**Prelimanary and General**				
1.1	Specific Requirements				
1.1.1	Contractor's facilities				
1.1.1.1	Establishment and removal of Contractor's yard and facilities includes toilet hire,clearing of site etc.	Sum	1	R 50 000.00	R 50 000.00
1.1.1.2	Maintanance of Contractor's yard and facilities	Sum	1	R 800 000.00	R 800 000.00
2	**Earthworks**				
2.1	Cubes to be removed	m^3	4200	R 50.00	R 210 000.00
2.2	Sloping of natural ground	m^2	3500	R 4.50	R 15 750.00
2.3	Removal of excess matarial(price per cube)	m^3	1	R 50.00	R 50.00
3	**Construction**				
3.1	Rock armour material				
3.1.1	Outer(800-1200kg)	m^3	3000	R 1 200.00	R 3 600 000.00
3.1.2	Inner(10-100kg)	m^3	1100	R 800.00	R 880 000.00
3.1.3	Sand on site(to be quarried within 2km)	m^3	1	R 50.00	R 50.00
3.1.4	Bidim Geofabric	m^2	2500	R 120.00	R 300 000.00
				Sub -Total	**R 5 855 850.00**
4	Contingency @ 20%				R 1 171 170.00
5	Engineering fee as per GG 2012 guidelines				R 463 188.68
6	Supervision	months	6	R 45 000.00	R 270 000.00
				Total	**R 7 760 208.68**

From **Table 3**, it is estimated that the budget price for the construction of Option 1 will be in the order of R7,760,208.68 excluding VAT (14%).

TABLE 4: Preliminary Budget for Option 2 – Sandbag Protection

Hermanus/Grotto parking area protection works Bill of Quantities					
Item	Description	Unit	Qty	Rate	Amount
1	**Prelimanary and General**				
1.1	Specific Requirements				
1.1.1	Contractor's facilities				
1.1.1.1	Establishment and removal of Contractor's yard and facilities includes toilet hire,clearing of site etc.	Sum	1	R 60 000.00	R 60 000.00
1.1.1.2	Maintanance of Contractor's yard and facilities	Sum	1	R 600 000.00	R 600 000.00
2	**Earthworks**				
2.1	Cubes to be removed	m^3	4200	R 50.00	R 210 000.00
2.2	Sloping of natural ground	m^2	3500	R 4.50	R 15 750.00
2.3	Removal of excess matarial(price per cube)	m^3	1	R 1 200.00	R 1 200.00
2.4	Plant equipment for earthworks per day	day	1	R 12 000.00	R 12 000.00
3	**Construction**				
3.1	Sandbag construction				
3.1.1	Geocontainer sandbags	Sum	1350	R 1 400.00	R 1 890 000.00
3.1.2	Sand on site to be quarried within 2km	m^3	1	R 50.00	R 50.00
3.1.3	Plant equipment for construction per day	day	1	R 20 000.00	R 20 000.00
3.1.4	3PL Geotextile	m^2	4050	R 120.00	R 486 000.00
				Sub-Total	**R 3 295 000.00**
4	Contingency @ 20%				R 659 000.00
5	Engineering fee as per GG 2012 guidelines				R 271 124.93
6	Supervision	months	3	R 45 000.00	R 135 000.00
				Total	**R 4 360 124.93**

From **Table 4**, a preliminary budget of R4,360,124.93 excluding 14% VAT, is estimated for the construction of Option 2.

TABLE 5: Preliminary Budget for Option 3 – Concrete Slab Protection

Hermanus/Grotto parking area protection works Bill of Quantities					
Item	Description	Unit	Qty	Rate	Amount
1	**Prelimanary and General**				
1.1	Specific Requirements				
1.1.1	Contractor's facilities				
1.1.1.1	Establishment and removal of Contractor's yard and facilities includes toilet hire,clearing of site etc.	Sum	1	R 30 000.00	R 30 000.00
1.1.1.2	Maintanance of Contractor's yard and facilities	Sum	1	R 500 000.00	R 500 000.00
2	**Earthworks**				
2.1	Cubes to be removed	m^3	4200	R 50.00	R 210 000.00
2.2	Sloping of natural ground	m^2	3500	R 4.50	R 15 750.00
2.3	Removal of excess matarial(price per cube)	m^3	1	R 200.00	R 200.00
2.4	Plant equipment for earthworks per day	day	1	R 12 000.00	R 12 000.00
3	**Construction**				
3.1	Concrete works				
3.1.1	Marine grade concrete mix to be specified (200mm thick)	m^3	621	R 3 200.00	R 1 987 200.00
3.1.2	50mm Blinding	m^3	205	R 1 300.00	R 266 500.00
3.1.3	Plant equipment for construction per day	day	1	R 4 000.00	R 4 000.00
3.1.4	Construction of rock toe(100-300kg)	m^3	800	R 800.00	R 640 000.00
				Sub-Total	R 3 665 650.00
4	Contingency @ 20%				R 733 130.00
5	Engineering fee as per GG 2012 guidelines				R 298 923.68
6	Supervision	months	4	R 45 000.00	R 180 000.00
				Total	**R 4 877 703.68**

From **Table 5**, a preliminary budget estimate of R4,877,703.68 excluding 14% VAT, has been calculated for the construction of Option 3.

TABLE 6: Preliminary Budget for Option 4 – Sloping Only

Hermanus/Grotto parking area protection works Bill of Quantities					
Item	Description	Unit	Qty	Rate	Amount
1	**Prelimanary and General**				
1.1	Specific Requirements				
1.1.1	Contractor's facilities				
1.1.1.1	Establishment and removal of Contractor's yard and facilities includes toilet hire,clearing of site etc.	Sum	1	R 20 000.00	R 20 000.00
1.1.1.2	Maintanance of Contractor's yard and facilities	Sum	1	R 40 000.00	R 40 000.00
2	**Earthworks**				
2.1	Cubes to be removed	m^3	4200	R 50.00	R 210 000.00
2.2	Sloping of natural ground	m^2	3500	R 4.50	R 15 750.00
2.3	Removal of excess matarial(price per cube)	m^3	1	R 200.00	R 200.00
2.4	Plant equipment for earthworks per day	day	1	R 12 000.00	R 12 000.00
				Sub-Total	R 297 950.00
3	Contingency @ 20%				R 59 590.00
4	Engineering fee as per GG 2012 guidelines				R 27 932.81
5	Supervision	months	2	R 45 000.00	R 90 000.00
				Total	**R 475 472.81**

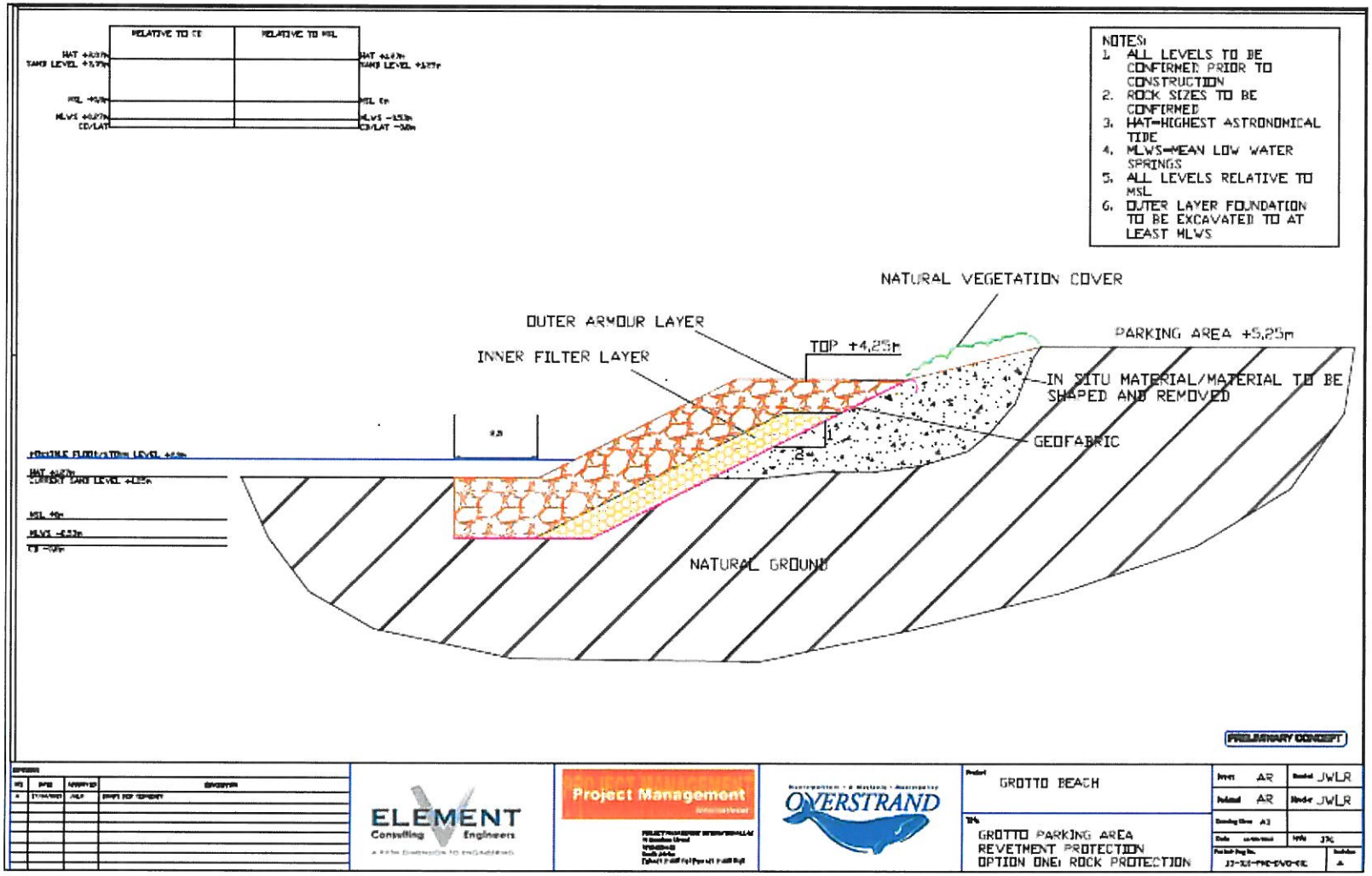
From **Table 6**, a preliminary budget of R475,472.81 excluding 14% VAT, is estimated for Option 4.

7 CONCLUSIONS

As a result of the need for an urgent cost effective short term solution, we recommend that Option 4 be implemented with immediate effect. This option is simply the sloping of the natural ground to create an interim safe solution to the eroded area. It should be noted that this is not a permanent solution and subject to damage during storms and heavy rainfall.

PMI together with Element Consulting Engineers strongly recommend the implementation of Option 2: Sandbag revetment, for the long term solution. This option will ensure maximum protection for the parking area as well as incorporate the requirements of safety, tourism and aesthetical attributes set by the Overstrand Municipality.

Concepts: Option 1

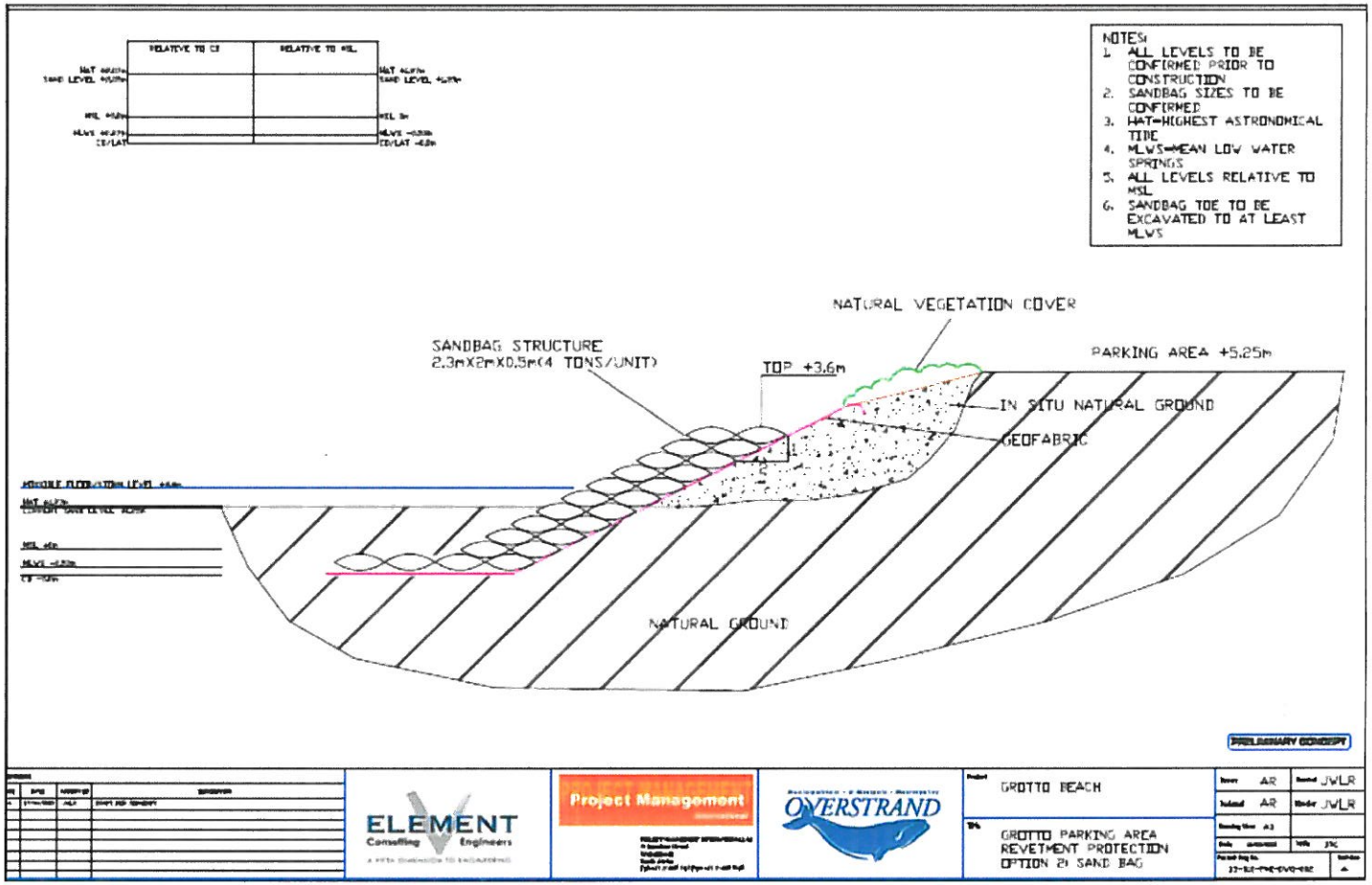


Option 1: Rock Protection

Option 1: Rock Protection

Option 1: Rock Protection

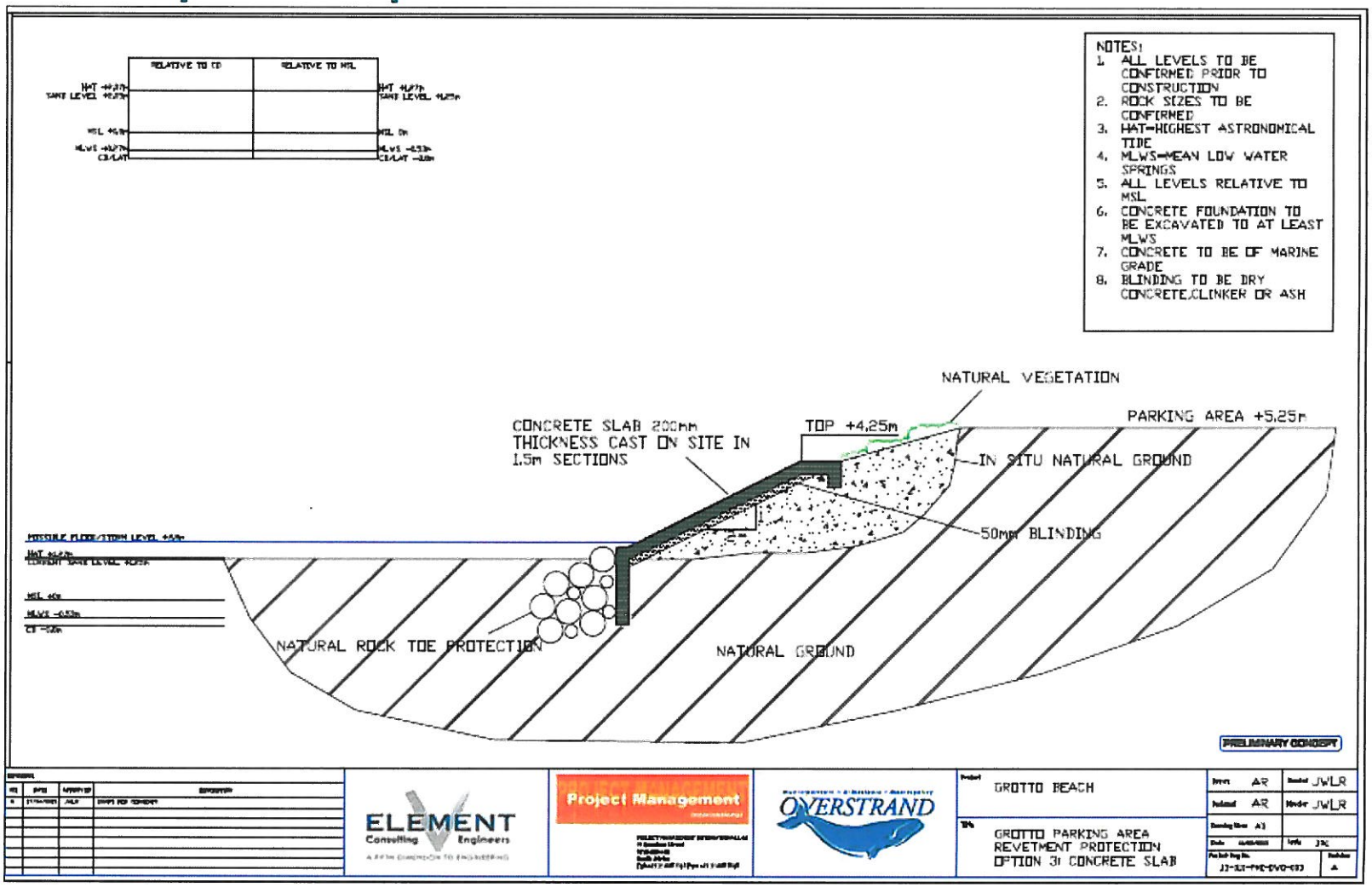
Concepts: Option 2



Option 2: Sand Bags

Option 2: Sand Bags (Enviro Rock – Soft Solution)

Concepts: Option 3



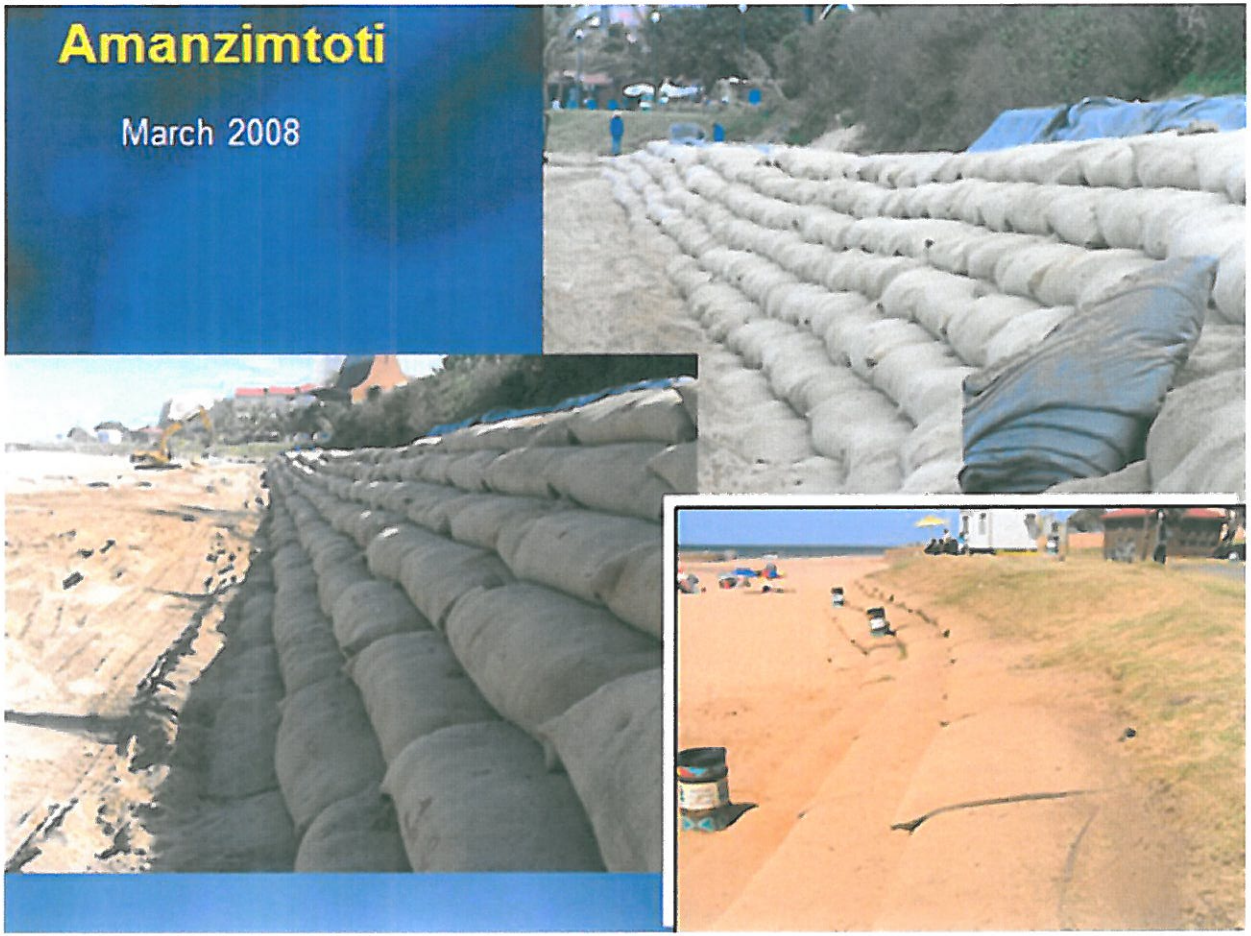
Concrete Option: Hermanus

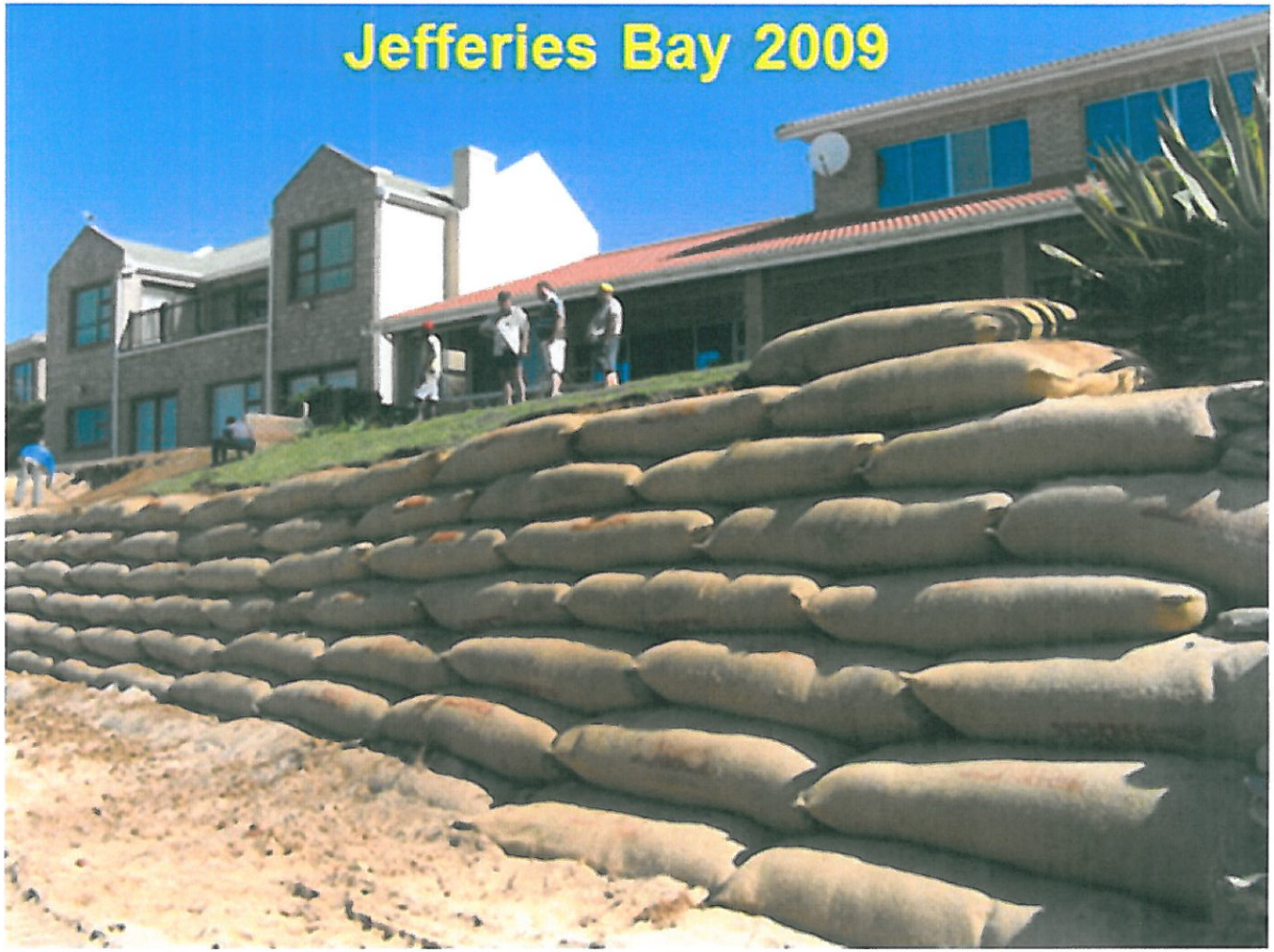
Concrete Option: Hermanus

Concrete Option Hermanus

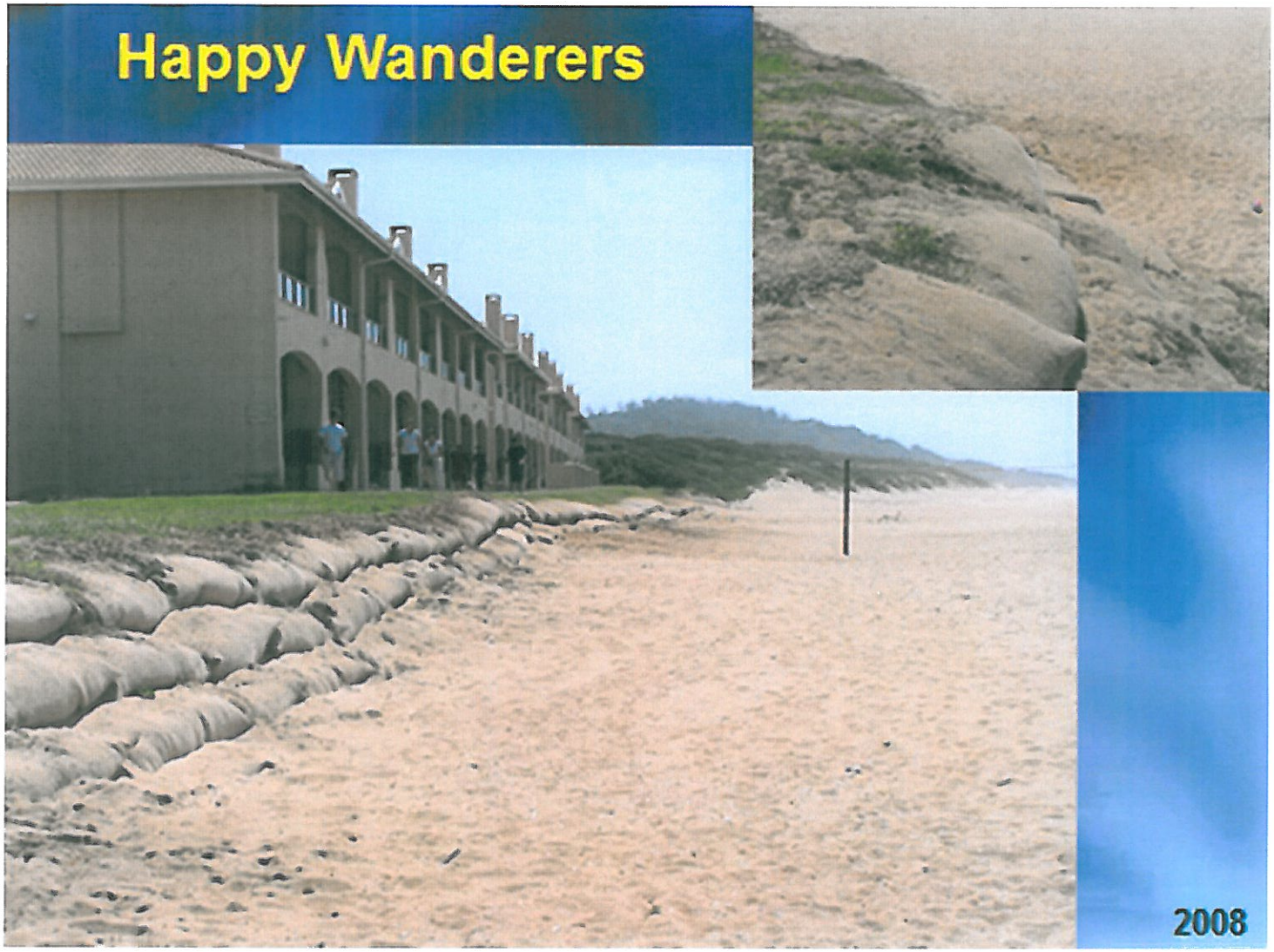
Sand Filling

Example projects



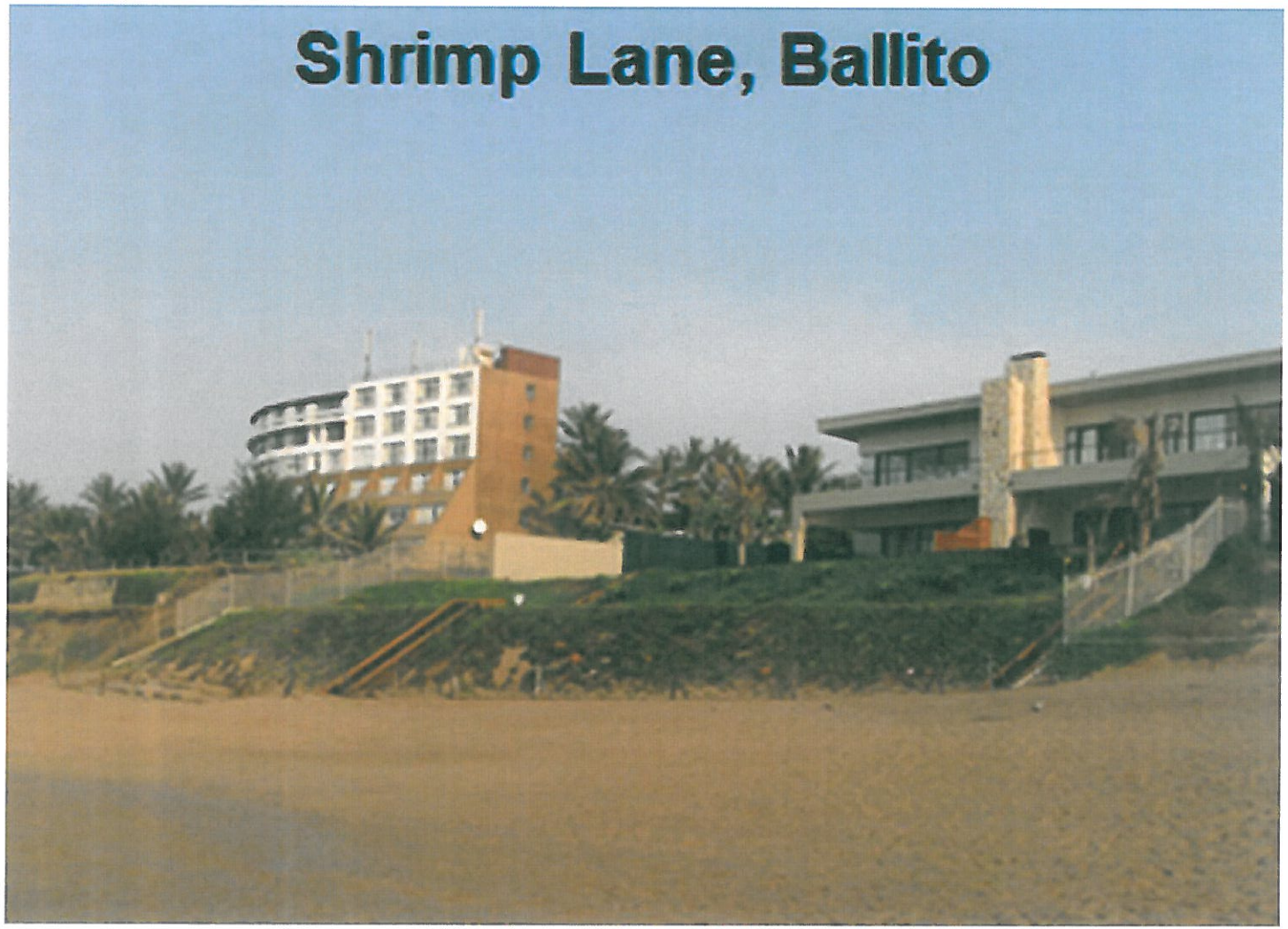

Jefferies Bay 2009

Happy Wanderers


Happy Wanderers
2008

2 Shrimp Lane, Ballito

Shrimp Lane, Ballito



APPENDIX H

ENVIRONMENTAL MANAGEMENT PROGRAM

(TO BE COMPILED AND INCLUDED AFTER COMMENT ON DRAFT BAR RECEIVED)

APPENDIX I

WASTE ACT MANAGEMENT ACTIVITIES

(NONE)

APPENDIX J

IMPACT ASSESSMENT METHODOLOGY USED

METHODOLOGY TO ASSESS POTENTIAL IMPACTS IDENTIFIED

The potential impacts of the proposed activity on the various components of the receiving environment was evaluated in terms of nature, duration (time scale), extent (spatial scale), magnitude and significance as outlined in Table 1. The impacts were furthermore assessed in terms of the probability of the impact occurring, the degree in which the impacts may be reversed, the degree in which the impact may cause irreplaceable loss of resources and the degree in which the impact may be mitigated. These impacts could either be positive or negative.

The magnitude of an impact is a judgement value that rests with the individual assessor while the determination of significance rests on a combination of the criteria for duration, extent and magnitude. Significance thus is also a judgement value made by the individual assessor.

In addition to determining the individual impacts against the various criteria, the element of mitigation, where relevant, was also brought into the assessment. In such instances the impact was assessed with a statement on the mitigation measure that should be applied.

Table 1: Criteria used for evaluating impacts

Criteria	Category
Duration	**Long term:** >15 years **Medium term:** 5 – 15 years **Short term:** 1 – 5 years **Temporary:** < 1 year (not including construction)
Extent	**Large:** Beyond 5 km of the site (regional) **Medium:** Within 5 km of the site (local) **Small:** On site or within 1 km of the site (limited)
Magnitude	**High:** Natural and/or social functions/processes are severely altered **Medium:** Natural and/or social functions/processes are notably altered **Low:** Natural and/or social functions/processes are slightly altered **Very low:** Natural and/or social functions/processes are negligibly altered
Significance (The impact on each component is determined by a combination of the above criteria and defined as follows)	**Very high:** Impacts have a high magnitude and will be experienced regionally for at least the life span of the development, or will be irreversible **High:** Impacts will be experienced in the local and surrounding areas for the life span of the development and may result in long term changes **Medium:** Impacts will be localised and short to long term **Low:** Impacts will be site specific and temporary **No change:** A potential concern which was found to have no impact when evaluated
Probability	**Certain:** The impact will occur **Likely:** The impact is likely to manifest wholly or partially **Unlikely:** It is unlikely that the impact will occur
Degree of Reversal	**High:** The impact may be reversed in such a way that the *status quo* prior to development is attained **Medium:** The impact may be reversed to a state where certain processed remain altered while others are restored **Low:** The impacts cannot be reversed
Degree in which irreplaceable loss of resources may occur	**High:** Impact will result in loss of resource that is not replaceable and not replicated elsewhere **Medium:** Impact will result in loss of resource that is not replaceable but is replicated elsewhere **Low:** Impact will not result in any loss of resources or restricted to a very minor loss
Degree to which impact can be mitigated	**High:** The impact may be mitigated in such a way that the *status quo* prior to development is attained **Medium:** The impact may be mitigated to a state where certain processed remain altered while others are restored **Low:** The impacts cannot be mitigated or only very minor mitigation can be achieved.