



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

(For official use only)

File Reference Number:

DEA: 14/12/16/3/3/2/460

Application Number:

NEAS: DEA/EIA/0001659/2013

Date Received:

Basic assessment report in terms of the Environmental Impact Assessment Regulations, 2010, promulgated in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended.

Kindly note that:

1. This **basic assessment report** is a standard report that may be required by a competent authority in terms of the EIA Regulations, 2010 and is meant to streamline applications. Please make sure that it is the report used by the particular competent authority for the activity that is being applied for.
2. This report format is current as of **1 September 2012**. It is the responsibility of the applicant to ascertain whether subsequent versions of the form have been published or produced by the competent authority
3. The report must be typed within the spaces provided in the form. The size of the spaces provided is not necessarily indicative of the amount of information to be provided. The report is in the form of a table that can extend itself as each space is filled with typing.
4. Where applicable **tick** the boxes that are applicable in the report.
5. An incomplete report may be returned to the applicant for revision.
6. The use of “not applicable” in the report must be done with circumspection because if it is used in respect of material information that is required by the competent authority for assessing the application, it may result in the rejection of the application as provided for in the regulations.
7. This report must be handed in at offices of the relevant competent authority as determined by each authority.
8. No faxed or e-mailed reports will be accepted.
9. The signature of the EAP on the report must be an original signature.
10. The report must be compiled by an independent environmental assessment practitioner.
11. Unless protected by law, all information in the report will become public information on receipt by the competent authority. Any interested and affected party should be provided with the information contained in this report on request, during any stage of the application process.
12. A competent authority may require that for specified types of activities in defined situations only parts of this report need to be completed.
13. Should a specialist report or report on a specialised process be submitted at any stage for any part of this application, the terms of reference for such report must also be submitted.
14. Two (2) colour hard copies and one (1) electronic copy of the report must be submitted to the competent authority.
15. Shape files (.shp) for maps must be included on the electronic copy of the report submitted to the competent authority.

SECTION A: ACTIVITY INFORMATION

Has a specialist been consulted to assist with the completion of this section?

YES	NO ✓
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If YES, please complete the form entitled "Details of specialist and declaration of interest" for the specialist appointed and attach in Appendix I.

1. PROJECT DESCRIPTION

a) Describe the project associated with the listed activities applied for

The proposed project consists of an abalone farm of approximately 13.5 ha (1.5 ha initially, the remainder reserved for future expansion), which includes a site in the harbour area of the town, as well as a site \pm 1.5km south of Hondeklip Bay town (to be referred to as 'Aristea site') (see figure below). The design brief for the hatchery includes 42 different facility and system components, including water reticulation, hatchery, nursery, grow-out and support systems. The designs also include comprehensive bio-security systems.

Associated infrastructure on the site outside town would consist of various buildings for the keeping of broodstock, larval rearing, settlement, weaning; a pump house, abalone grow-out tanks and associated pipework, generator room, storage of equipment and supplies, a workshop, laboratories and water treatment stations. Manager's and workers' houses, an office, ablutions, fencing, access roads as well as a marine off take pipeline and a marine effluent outfall pipeline. The existing power line would be upgraded and the site would be connected to this line for power. The proposed Aristea site has been selected to be situated adjacent to an old marine off-take pipeline, which is located at the best possible site along the coast, due to:

- close proximity to the sea (short pumping distance),
- the existence of a gully that protects infrastructure from wave action and provide calm water conditions resulting in a high water quality (low turbidity) and the ability to service pump infrastructure on a regular basis,
- a relatively flat angle between the pump house and the abalone farm (compared to some other sites along the coast).

The proposed town site has been used as pilot site since 2006 and would be upgraded to continue in a more commercial capacity.

The farm will keep abalone broodstock, spawn the broodstock at regular intervals and produce juvenile abalone through procedures including larval rearing, settlement, and weaning. Some of the juveniles will be on-grown to larger sizes to supply abalone ranching operations. The facility will be supplied with seawater pumped from the sea. Pumped seawater will flow through the tanks housing abalone and will be returned to the sea after use. Cultured abalone will be fed a combination of natural and artificial feeds. Animal husbandry procedures include stocking, splitting, grading, protection from predators etc.

See also Appendix A, B and C for more maps, plans and photos.

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Figure 1: Proposed locality of Aristeia site and town site in relation to Hondeklip Bay town

b) Provide a detailed description of the listed activities associated with the project as applied for

Listed activity as described in GN R.544, 545 and 546	Description of project activity
GN 544 Item 6(ii): The construction of facilities, infrastructure or structures for aquaculture of molluscs where such facility, infrastructure or structures will have a production output exceeding 30 000 kg but not exceeding 150 000 kg per annum (wet weight); excluding where the construction of facilities, infrastructure or structures is for purposes of offshore cage culture in which case activity 7 in this Notice will apply	The production output of the proposed Aristeia site outside Hondeklip Bay would have a production output exceeding 30 000kg but not exceeding 150 000kg per annum (wet weight). If only a hatchery is built and no future grow-out farm, then production would be less than 30 000kg/a.
GN 544 Item 8: The construction of a hatchery or agri-industrial infrastructure outside industrial complexes where the development footprint covers an area of 2 000 square metres or more.	Construction activities would require trenching and digging foundations for extension of buildings, triggering this activity. The total area to be covered at the Aristeia site would exceed 2000m ²
GN 544 Item 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 – (v) buildings of 50 square metres or more; or (vi) infrastructure covering 50 square metres or more	The proposed expansion of the buildings and associated infrastructure at the Town site would entail construction activities within the 100m high watermark of the sea.
GN 544 Item 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: (ii) the sea; (iii) the seashore;	Construction activities would require trenching and digging foundations for extension of buildings, triggering this activity.
GN 544 Item 28: The expansion of or changes to existing facilities for any process or activity where such expansion or changes to will result in the need for a [new, or amendment of, an existing] permit or license in terms of national or provincial legislation governing the	The expansion of the operations in town would require outlet of seawater with a different temperature, for which a permit is required to the Integrated Coastal Management Act

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release of emissions or pollution, excluding where the facility, process or activity is included in the list of waste management activities published in terms of section 19 of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) in which case that Act will apply.	
GN 544 Item 33: The expansion of facilities, infrastructure or structures for aquaculture of- (ii) molluscs where the production output of such facility, infrastructure or structures will be increased by 30 000 (wet weight) or more;	For the Town site, the expansion of facilities, infrastructure or structures for aquaculture would increase the production output by 30 000kg (wet weight) or more;
GN 545 Item 5: The construction of facilities or infrastructure for any process or activity which requires a permit or license in terms of national or provincial legislation governing the generation or release of emissions, pollution or effluent and which is not identified in Notice No. 544 of 2010 or included in the list of waste management activities published in terms of section 19 of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) in which case that Act will apply.	Downscaling to basic assessment has been granted by the DEA. The new facility at the Aristeia site would have a seawater outlet, which would require a permit in terms of the National Environmental Management: Integrated Coastal Management Act.

2. FEASIBLE AND REASONABLE ALTERNATIVES

“alternatives”, in relation to a proposed activity, means different means of meeting the general purpose 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;
- (c) 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.

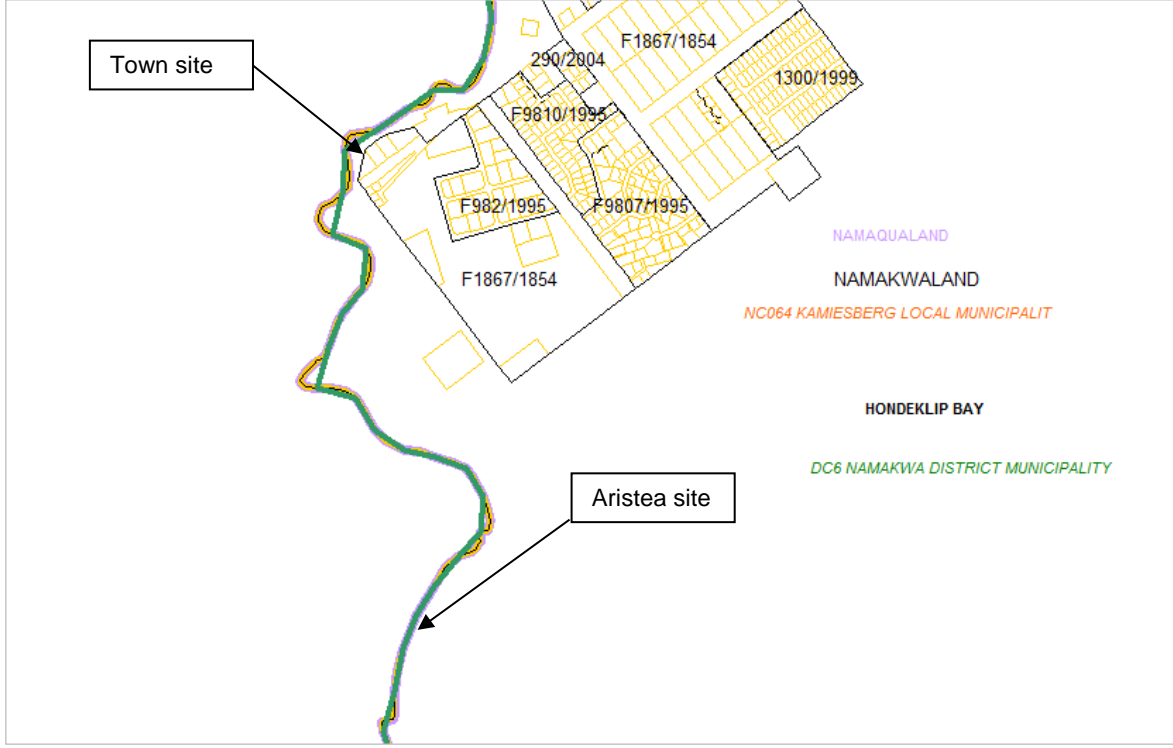
Describe alternatives that are considered in this application as required by Regulation 22(2)(h) of GN R.543. Alternatives should include a consideration of all possible means by which the purpose and need of the proposed activity (NOT PROJECT) could be accomplished in the specific instance taking account of the interest of the applicant in the activity. The no-go alternative must in all cases be included in the assessment phase as the baseline against which the impacts of the other alternatives are assessed.

The determination of whether site or activity (including different processes, etc.) or both is appropriate needs to be informed by the specific circumstances of the activity and its environment. After receipt of this report the competent authority may also request the applicant to assess additional alternatives that could possibly accomplish the purpose and need of the proposed activity if it is clear that realistic alternatives have not been considered to a reasonable extent.

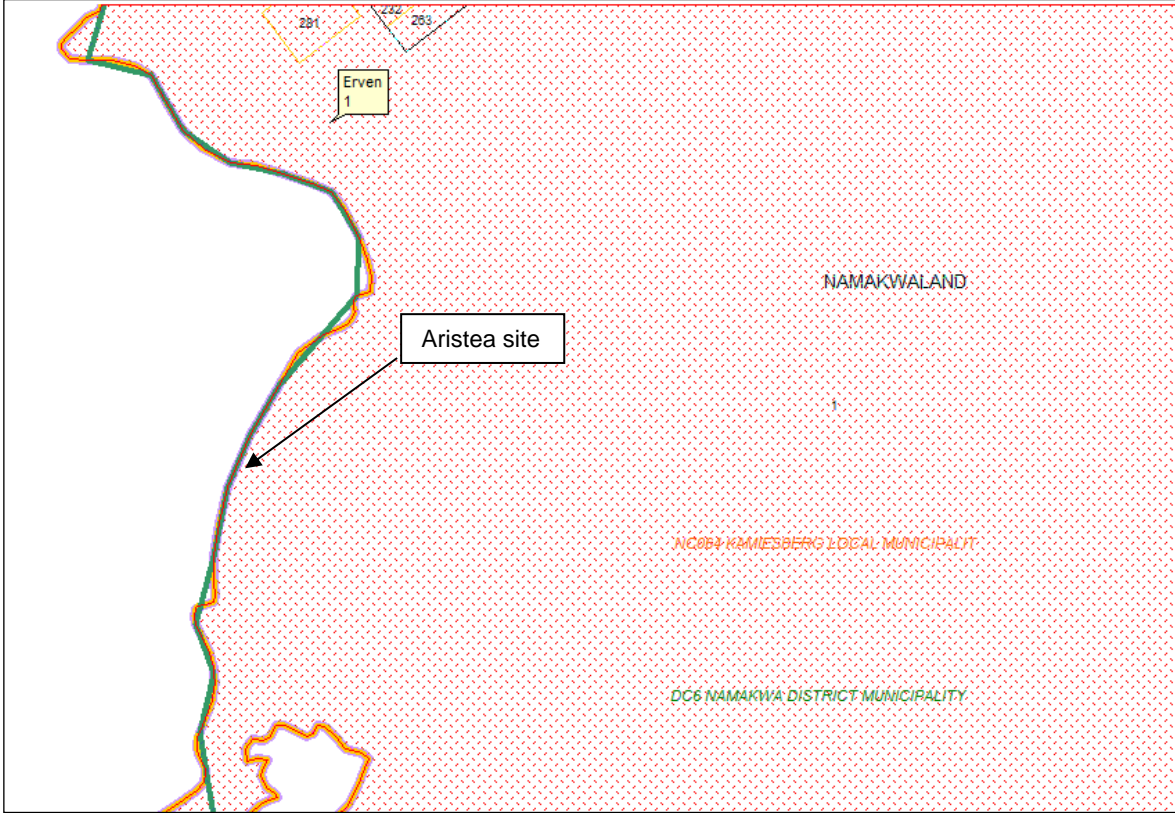
The identification of alternatives should be in line with the Integrated Environmental Assessment Guideline Series 11, published by the DEA in 2004. Should the alternatives include different locations and lay-outs, the co-ordinates of the different alternatives must be provided. The co-ordinates should be in degrees, minutes and seconds. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection.

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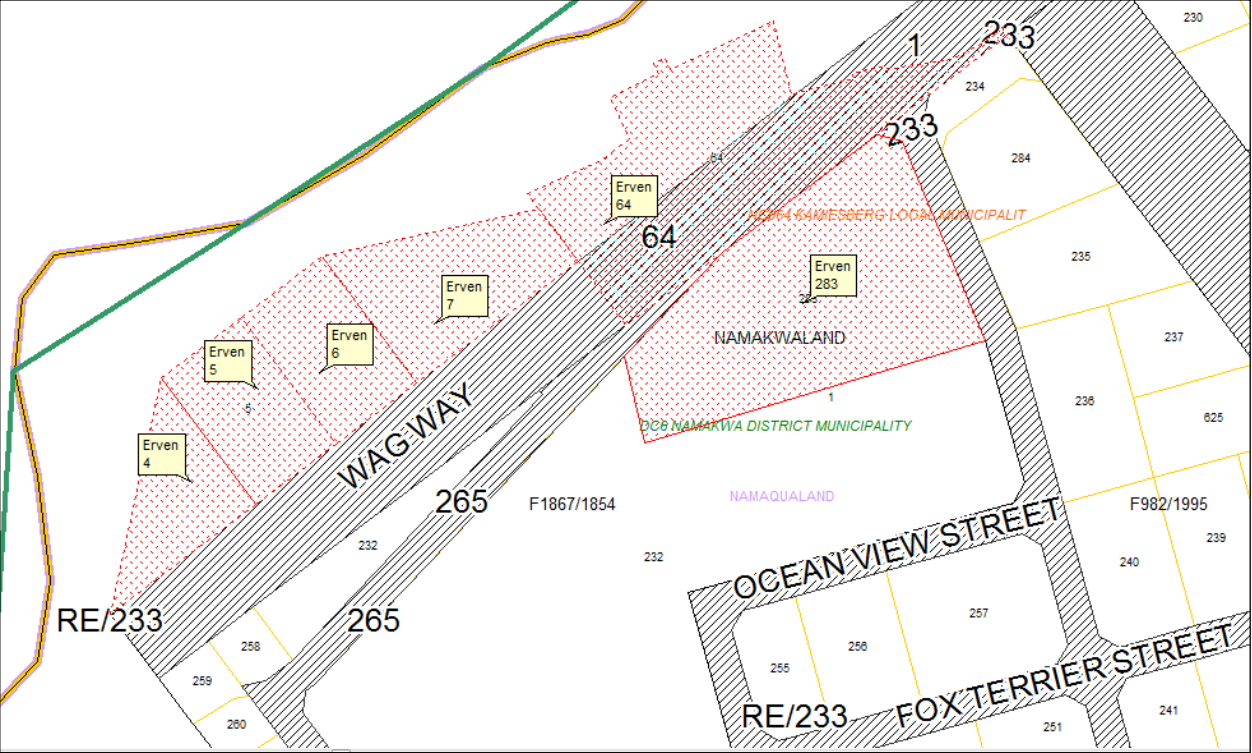
a) Site alternatives

Alternative 1 (preferred alternative) S1&2 A1		
Description	Lat (DDMMSS)	Long (DDMMSS)
<p>There are two sites to be considered as part of the one project. As preferred alternative and to maximise space available for future expansion, both Aristeia site and Town site are considered together to obtain maximum area in one application. The intent is to establish an abalone farm for commercial purposes and to provide opportunities on the Aristeia site for 'small scale farmers' in future but to have the necessary approvals in place now. The reason for inclusion of the town site is due to an existing pilot project, which could then be expanded. The expansion would be limited to Erven 4, 5, 6, 7, 64 and 283.</p>	30°20'31.59"S (Aristeia)	17°16'47.62"E (Aristeia)
	30°19'2.55"S (Town)	17°16'24.51"E (Town)
 <p>The map shows a coastal area with a river or bay on the left. Two sites are highlighted: the 'Town site' at the northern end and the 'Aristeia site' further south. The town site is surrounded by a grid of property boundaries, some labeled with numbers like 290/2004, F1867/1854, 1300/1999, F9810/1995, F982/1995, and F9807/1995. The map also shows the boundaries of NAMAQUALAND, NAMAQUALAND, NC064 KAMIESBERG LOCAL MUNICIPALIT, HONDEKLIP BAY, and DC6 NAMAQWA DISTRICT MUNICIPALITY.</p>		
<p>Figure 2: Aristeia and Town site in relation to Hondeklip Bay town</p>		

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Alternative 2 – Aristeia site only, S1A1		
Description	Lat (DDMMSS)	Long (DDMMSS)
<p>The Aristeia site would be the preferred alternative site, should the Town site not be feasible. This would be due to the larger area available for commercial purposes and to provide opportunities on the site for 'small scale farmers' in future but to have the necessary approvals in place now.</p>  <p style="text-align: center;">Figure 3: Aristeia site approximately 1.5km south of town</p>	30°20'31.59"S	17°16'47.62"E

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Alternative 3 – Town site, S2A1		
Description	Lat (DDMMSS)	Long (DDMMSS)
<p>Should the Aristeia site found not to be feasible, expansion of the current pilot project only would be the next feasible alternative so it could continue on a more commercial basis. Expansions would be limited within the existing erf boundaries (erf 4, 5, 6, 7, 64 en 283). This would also limit future opportunities for small scale farmers.</p>  <p style="text-align: center;">Figure 4: Town site</p>	<p>30°19'2.55"S</p>	<p>17°16'24.51"E</p>

In the case of linear activities:

not applicable – not a linear activity

Alternative:	Latitude (S):	Longitude (E):
Alternative S1 (preferred)		
• Starting point of the activity		
• Middle/Additional point of the activity		
• End point of the activity		
Alternative S2 (if any)		
• Starting point of the activity		
• Middle/Additional point of the activity		
• End point of the activity		
Alternative S3 (if any)		
• Starting point of the activity		
• Middle/Additional point of the activity		
• End point of the activity		

For route alternatives that are longer than 500m, please provide an addendum with co-ordinates taken every 250 meters along the route for each alternative alignment.

In the case of an area being under application, please provide the co-ordinates of the corners of the site as indicated on the lay-out map provided in Appendix A.

b) Lay-out alternatives

Alternative S1&2 A1 (preferred alternative – Aristeia and town site for one project)		
Description	Lat (DDMMSS)	Long (DDMMSS)
The layout of both sites are limited within the constraints of archaeological resources (Aristeia site) and existing buildings (town site) therefore no significant layout alternatives exist and would be restricted to the arrangement of facilities within the overall footprint.	30°20'31.59"S (Aristeia)	17°16'47.62"E (Aristeia)
	30°19'2.55"S (Town)	17°16'24.51"E (Town)
Alternative 2 - S1A1 (Aristeia site only)		
Description	Lat (DDMMSS)	Long (DDMMSS)
The layout of the Aristeia site is limited within the constraints of archaeological resources therefore no significant layout alternatives exist and would be restricted to the arrangement of facilities within the overall footprint.	30°20'31.59"S	17°16'47.62"E
Alternative 3 – S2A1 (Town site only)		
Description	Lat (DDMMSS)	Long (DDMMSS)
The layout of the town site is limited between existing buildings therefore no significant layout alternatives exist and would be restricted to the arrangement of facilities within the overall footprint.	30°19'2.55"S	17°16'24.51"E

c) Technology alternatives

Not applicable

Alternative 1 (preferred alternative)
Alternative 2
Alternative 3

d) Other alternatives (e.g. scheduling, demand, input, scale and design alternatives)

Alternative 1 (preferred alternative) S1&S1 A1
Abalone production and processing on both Aristeia and town site for expansion of existing pilot project as well as approved facilities for future further expansion of activities.
Alternative 2, S1&S2 A2
<p>The following alternatives were considered, but found not to be feasible for the reasons as stated below:</p> <p>Farming with crayfish and or fish at the Town / Aristeia site – this has been considered, but is not feasible as crayfish lifecycle is not controlled (not yet known how to spawn them in captivity and grow-out the larvae).</p> <p>Land based farming of marine finfish is not financially viable.</p> <p>The dynamic sea conditions in this area prevent sea cage finfish farming.</p> <p><i>Due to its unfeasibility, these alternatives have not been assessed and will not be considered further.</i></p>
Alternative 3
Alternative A3 would be the no development alternative, i.e. status quo would remain.

e) No-go alternative

No development alternative – status quo would remain the same.
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Paragraphs 3 – 13 below should be completed for each alternative.

3. PHYSICAL SIZE OF THE ACTIVITY

a) Indicate the physical size of the preferred activity/technology as well as alternative activities/technologies (footprints):

Alternative: ARISTEA SITE

Alternative A1¹ (preferred activity alternative)
Alternative A2 (if any)
Alternative A3 (if any)

Size of the activity:

60 000m ²
m ²
m ²

Alternative: TOWN SITE

Alternative A1² (preferred activity alternative)
Alternative A2 (if any)
Alternative A3 (if any)

Size of the activity:

15 000m ²
m ²
m ²

Note that the preferred alternative would be both Aristeia and Town site, therefore an overall size of 75 000m², albeit in different locations.

or, for linear activities: not applicable

Alternative:	Length of the activity:
Alternative A1 (preferred activity alternative)	m
Alternative A2 (if any)	m
Alternative A3 (if any)	m

b) Indicate the size of the alternative sites or servitudes (within which the above footprints will occur):

Alternative: ARISTEA SITE

Alternative A1 (preferred activity alternative)
Alternative A2 (if any)
Alternative A3 (if any)

Size of the site/servitude:

22307604m ²
m ²
m ²

Alternative: TOWN SITE (combined size of erven)

Alternative A1 (preferred activity alternative)
Alternative A2 (if any)
Alternative A3 (if any)

Size of the site/servitude:

17 625.82m ²
m ²
m ²

4. SITE ACCESS – ARISTEA AND TOWNS SITE

Does ready access to the site exist?

If NO, what is the distance over which a new access road will be built

YES ✓	NO
	m

¹ "Alternative A.." refer to activity, process, technology or other alternatives.

² "Alternative A.." refer to activity, process, technology or other alternatives.

Describe the type of access road planned:

Not applicable

Include the position of the access road on the site plan and required map, as well as an indication of the road in relation to the site.

5. LOCALITY MAP

An A3 locality map must be attached to the back of this document, as Appendix A. The scale of the locality map must be relevant to the size of the development (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;
- indication of all the alternatives identified;
- closest town(s);
- road access from all major roads in the area;
- road names or numbers of all major roads as well as the roads that provide access to the site(s);
- all roads within a 1km radius of the site or alternative sites; and
- a north arrow;
- a legend; and
- locality 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).

6. LAYOUT/ROUTE PLAN

A detailed site or route plan(s) must be prepared for each alternative site or alternative activity. It must be attached as Appendix A to this document.

The site or route plans must indicate the following:

- the property boundaries and numbers of all the properties within 50 metres of the site;
- the current land use as well as the land use zoning of the site;
- the current land use as well as the land use zoning each of the properties adjoining the site or sites;
- the exact position of each listed activity applied for (including alternatives);
- servitude(s) indicating the purpose of the servitude;
- a legend; and
- a north arrow.

7. SENSITIVITY MAP

The layout/route plan as indicated above must be overlain with a sensitivity map that indicates all the sensitive areas associated with the site, including, but not limited to:

- watercourses;
- the 1:100 year flood line (where available or where it is required by DWA);
- ridges;
- cultural and historical features;
- areas with indigenous vegetation (even if it is degraded or infested with alien species); and
- critical biodiversity areas.

The sensitivity map must also cover areas within 100m of the site and must be attached in Appendix A.

8. SITE PHOTOGRAPHS

Colour photographs from the centre of the site must be taken in at least the eight major compass directions with a description of each photograph. Photographs must be attached under Appendix B to this report. It must be supplemented with additional photographs of relevant features on the site, if applicable.

9. FACILITY ILLUSTRATION

A detailed illustration of the activity must be provided at a scale of at least 1:200 as Appendix C for activities that include structures. The illustrations must be to scale and must represent a realistic image of the planned activity. The illustration must give a representative view of the activity.

10. ACTIVITY MOTIVATION

Motivate and explain the need and desirability of the activity (including demand for the activity):

1. Is the activity permitted in terms of the property's existing land use rights?	YES ✓	NO	Please explain
<p><u>Aristea site:</u> The land is zoned agriculture with existing mining rights.</p> <p><u>Town site:</u> The land is zoned industrial and residential. Residential properties would require a rezoning application</p>			

2. Will the activity be in line with the following?			
(a) Provincial Spatial Development Framework (PSDF)	YES✓	NO	Please explain
The PSDF notes that long-term mining concessions have an impact on the growth of alternative economic activities in the area and that it is important to consider viable alternative economic opportunities for the long term. Challenges for economic development in the northern cape include declining fish stocks, poor road infrastructure, lack of sheltered bays for ports and limited agricultural potential. There is therefore great potential of small scale industries to add value to fishing and agriculture.			
(b) Urban edge / Edge of Built environment for the area	YES✓	NO✓	Please explain
The town site is located within the urban edge. The Aristea site would be outside the urban edge			
(c) Integrated Development Plan (IDP) and Spatial Development Framework (SDF) 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?).	YES	NO	Please explain
The Kamiesberg Municipality does not have an IDP, but the Namakwa District municipality IDP refers. According to the Key performance area 3 for local economic development, the development of a maricultural park has been identified. The objective of this is to ensure the participation of the Namakwa District municipality in the development of the Mariculture Development along the West Coast and Hondeklip Bay as part of the DGDS and LED Strategy. The university of Stellenbosch and the Department of Science and Technology has been identified as the responsible entities for these projects. According to the local government handbook Local economic development activities for Kamieskroon municipality includes Key Projects, which is currently fishing (Hondeklip Bay) and tourism. http://www.municipalities.co.za/south-africa/local-municipality/168			
(d) Approved Structure Plan of the Municipality	YES	NO	Please explain
No approved Structure plan for the municipality could be sourced and since this is a rural area, the Namakwa District IDP and Provincial SDF has reference.			
(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
No adopted EMF exists currently.			
(f) Any other Plans (e.g. Guide Plan)	YES	NO	Please explain
Not applicable.			
3. Is the land use (associated with the activity being applied for) considered within the timeframe intended by the existing approved 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)?	YES✓	NO	Please explain
The Municipality does not have an IDP, but according to the Namakwa district IDP, the development of a maricultural park has been identified. The objective of this is to ensure the participation of the Namakwa District municipality in the development of the Mariculture Development along the West Coast and Hondeklip Bay as part of the DGDS and LED Strategy.			

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<p>4. 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.)</p>	<p>YES ✓</p>	<p>NO</p>	<p>Please explain</p>
<p>The Northern Cape coastal area is suffering from extreme unemployment, as diamond mines are closing and marine resources are no longer as abundant as in the past and consequently, fish factories have closed down. An abalone farm would provide employment to the local community. Society would benefit in that abalone farming is a foreign currency generator as most abalone is exported. Abalone farming also reduced pressure on threatened wild stocks.</p>			
<p>5. 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 I.)</p>	<p>YES ✓</p>	<p>NO</p>	<p>Please explain</p>
<p>The proposed site in town would not require additional services, as existing services would be utilised, although these would need upgrading. The proposed Aristeia site would utilise alternative means for sewage and water requirements (limited potable water required, which could be provided by truck from town and rainwater harvesting). The existing power line in the vicinity of the Aristeia site would require an upgrade to provide electricity to the site. This would require a separate application to Eskom.</p>			
<p>6. 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 I.)</p>	<p>YES</p>	<p>NO</p>	<p>Please explain</p>
<p>Not required.</p>			
<p>7. Is this project part of a national programme to address an issue of national concern or importance?</p>	<p>YES ✓</p>	<p>NO</p>	<p>Please explain</p>
<p>The project is an initiative supported by the Department of Science and Technology. The project also supports the objectives of various Department of Agriculture, Forestry and Fisheries marine aquaculture and ranching policies.</p>			
<p>8. 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.)</p>	<p>YES ✓</p>	<p>NO</p>	<p>Please explain</p>
<p>Town site – would be located in an area already used for the same purpose with existing infrastructure that only needs expansion. Aristeia site – would be situated adjacent to an old marine off-take pipeline, which is located at the best possible site along this part of the coast, due to:</p> <ul style="list-style-type: none"> • close proximity to the sea (short pumping distance), • the existence of a gully that protects infrastructure from wave action and provide calm water conditions resulting in a high water quality (low turbidity), • a relatively flat angle between the pump house and the abalone farm (compared to some other sites along the coast). <p>The relative short distance to town would also be favourable in terms of worker transport.</p>			

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9. Is the development the best practicable environmental option for this land/site?	YES✓	NO	Please explain
Yes, when considering the socio-economic profile of and limited alternative options for the area.			
10. Will the benefits of the proposed land use/development outweigh the negative impacts of it?	YES ✓	NO	Please explain
Marine resources are no longer as abundant as in the past and consequently, fish factories have closed down. An abalone farm would provide employment to the local community.			
11. Will the proposed land use/development set a precedent for similar activities in the area (local municipality)?	YES	NO✓	Please explain
No other abalone farms in the vicinity.			
12. Will any person's rights be negatively affected by the proposed activity/ies?	YES	NO✓	Please explain
Concerns regarding access to the coast has been addressed in the comments and responses report, Appendix E.			
13. Will the proposed activity/ies compromise the "urban edge" as defined by the local municipality?	YES	NO✓	Please explain
The town site would not compromise the urban edge. The Aristeia site can be regarded as an agricultural activity on land zoned for farming.			
14. Will the proposed activity/ies contribute to any of the 17 Strategic Integrated Projects (SIPS)?	YES✓	NO	Please explain
SIP11 intends to Improve investment in agricultural and rural infrastructure that supports expansion of production and employment, small scale farming and rural development. The Abalone farm in Hondeklip Bay would be funded by DST and has opportunities for small scale abalone farmers as a prospect			
15. What will the benefits be to society in general and to the local communities?	Please explain		
The local community would benefit from the provision of 30 or more permanent employment opportunities. As Marine resources are no longer as abundant as in the past resulting in fish factories closing, alternative means of employment are limited. Society would benefit in that abalone farming is a foreign currency generator as most abalone is exported. Abalone farming also reduced pressure on threatened wild stocks.			
16. Any other need and desirability considerations related to the proposed activity?	Please explain		
The project supports an abalone ranching in the region: 4 coastal ranching zones have been put out in the region, the project will be able to supply spat for these.			
17. How does the project fit into the National Development Plan for 2030?	Please explain		
The project would be a small scale project in the context of the NDP, but one of the goals of the NDP is an inclusive and integrated rural economy which states that by 2030 there should be greater opportunities for rural communities through successful job creation and rising agricultural production. The project would provide an economic development opportunity in an area where no significant other economic development has taken place in the past 10 years and which has limited other development options. The project would further contribute to job creation in an area with high unemployment and consequently contribute to poverty alleviation.			

18. Please describe how the general objectives of Integrated Environmental Management as set out in section 23 of NEMA have been taken into account.

The general objectives 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;

The proposed development would not have a detrimental effect on the environment but would address affected people and their needs.

(b) 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, maximizing benefits, and promoting compliance with the principles of environmental management set out in section 2;

The anticipated impacts have been described and assessed in Section D of this the report, with appropriate mitigation measures, which have been incorporated into an Environmental Management Programme (see Appendix G)

(c) ensure that the effects of activities on the environment receive adequate consideration before actions are taken in connection with them;

A monitoring and audit protocol has been included in the Environmental Management Programme to address future unforeseen impacts.

(d) ensure adequate and appropriate opportunity for public participation in decisions that may affect the environment;

The public participation process has been conducted according to Regulation 56 of the NEMA EIA Regulations.

(e) ensure the consideration of environmental attributes in management and decision making which may have a significant effect on the environment; and

The competent authority needs to take the information as presented in this report into consideration. Comment from relevant other authorities would be instrumental in this decision.

(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.

The specifications as set out in the Environmental Management Programme is regarded to be best suited for this particular project.

19. Please describe how the principles of environmental management as set out in section 2 of NEMA have been taken into account.

NEMA Chapter 1 Section 2 (2) - Placing people and their needs at the forefront of environmental management

The development has financial, socio-economic and environmental considerations and benefits.

The Northern Cape coastal area is suffering from extreme unemployment, as diamond mines are closing and marine resources are no longer as abundant as in the past and consequently, fish factories have closed down. The local community will benefit from the provision of 30 or more permanent employment opportunities. As there are no other means of generating livelihoods in the area, it has been welcomed.

Society will benefit in that abalone farming is a foreign currency generator as most abalone is exported.

In terms of environmental considerations abalone farming would contribute to research and the enhancement of a natural resource, which is a sought after commodity. Farming of abalone in the Northern Cape may to some extent counteract the effects of poaching in areas where they naturally occur.

NEMA Chapter 1 Section 2 (4) (b) - integrated environmental management with best practical environmental solution

According to NEMA the "best practicable environmental option" means the option that provides the most benefit and causes the least damage to the environment as a whole, at a cost acceptable to society, in the long term as well as in the short term. In determining the best practicable environmental option, adequate consideration must also be given to opportunity costs.

11. APPLICABLE LEGISLATION, POLICIES AND/OR GUIDELINES

List all legislation, policies and/or guidelines of any sphere of government that are applicable to the application as contemplated in the EIA regulations, if applicable:

Title of legislation, policy or guideline	Applicability to the project	Administering authority	Date
The National Environmental Management Act, 1998 (Act No. 107 of 1998), S 28(1)	Responsible for the duty of care for protection of natural assets.	Department of Environmental Affairs	1998
National Environmental Management: Biodiversity Act (No 10 of 2004), Chapter 3, 4, 5 & 6	Applicable in terms of maintaining genetic integrity of natural species and ecosystems, bio-security issues, impact on wild species diversity at seeding sites.	Department of Environmental Affairs	2004
National Environmental Management: Integrated Coastal Management Act (No 24 of 2008), Chapter 4 Pt. 3 and 5	Requirement for a discharge permit for circulated sea water	DEA: Oceans and coast	2008
Occupational Health and Safety Act (No 85 of 1993)	Site staff and visitors need to be protected from health and safety risks.	Department of Labour	1993
S 9(1)	The project must minimise the hazards to both staff and visitors.		
National Heritage Resources (Act No. 25 of 1999), S 44(1)	Protection of possible heritage resources that may be found on site.	South African Heritage Resources Agency	1999
Animal Health Act No. 7 of 2002, S 16 & 17	Implementing measures to prevent diseases	Department of Agriculture Forestry and Fisheries	2002
The Seashore Act, 1935 (Act No. 21 of 1935)	Lease of seashore (water and land between low and high water mark) for construction of structures or laying of pipeline	DEA: Oceans and coast	1973

12. WASTE, EFFLUENT, EMISSION AND NOISE MANAGEMENT

a) Solid waste management

Will the activity produce solid construction waste during the construction/initiation phase? **For both sites**

YES✓	NO
20m ³	

If YES, what estimated quantity will be produced per month?

How will the construction solid waste be disposed of (describe)?

Solid waste will be disposed of at the local municipal / district dump site.

Where will the construction solid waste be disposed of (describe)?

Municipal dumpsite in Hondeklip Bay.

Will the activity produce solid waste during its operational phase?

YES✓	NO
5m ³	

If YES, what estimated quantity will be produced per month?

How will the solid waste be disposed of (describe)?

Waste will be disposed of at the local municipal / district dump site.

If the solid waste will be disposed of into a municipal waste stream, indicate which registered landfill site will be used.

Municipal dumpsite at Hondeklip Bay (no record of registration available).

Where will the solid waste be disposed of if it does not feed into a municipal waste stream (describe)?

Not applicable.

If the solid waste (construction or operational phases) will not be disposed of in a registered landfill site or be taken up in a municipal waste stream, then the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

Can any part of the solid waste be classified as hazardous in terms of the NEM:WA?

YES	NO✓
-----	-----

If YES, inform the competent authority and request a change to an application for scoping and EIA. An application for a waste permit in terms of the NEM:WA must also be submitted with this application.

Is the activity that is being applied for a solid waste handling or treatment facility?

YES	NO✓
-----	-----

If YES, then the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA. An application for a waste permit in terms of the NEM:WA must also be submitted with this application.

b) Liquid effluent

Will the activity produce effluent, other than normal sewage, that will be disposed of in a municipal sewage system?

YES	NO ✓
-----	------

Flow through seawater only (pumped from and back to the sea).

If YES, what estimated quantity will be produced per **month**?

194400 m³

Will the activity produce any effluent that will be treated and/or disposed of on site?

YES ✓	NO
----------	----

Aristea - eco toilets, as it would not require infrastructure / water or removal of sewage by the municipality.

Town – conservancy tank, but under the waste license threshold (refer to site plan)

If YES, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

Will the activity produce effluent that will be treated and/or disposed of at another facility?

YES	NO ✓
-----	------

If YES, provide the particulars of the facility:

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

Describe the measures that will be taken to ensure the optimal reuse or recycling of waste water, if any:

There would not be waste water generated from this activity. Compost toilets would be used at the Aristea site and water for washing of facilities would be seawater. Grey water from ablutions (hand washing / cooking) would be minimal and could be disposed of into the storm water system.

Similarly, at the town site, waste water would not be generated from the activity. Water for washing would be seawater and water from ablution facilities would convey to the conservancy tanks, which would be pumped out on regular basis by the municipality, as is current practice.

c) Emissions into the atmosphere

Aristea and Town site

Will the activity release emissions into the atmosphere other than exhaust emissions and dust associated with construction phase activities?

YES	NO ✓
-----	------

If YES, is it controlled by any legislation of any sphere of government?

YES	NO ✓
-----	------

If YES, the applicant must consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

If NO, describe the emissions in terms of type and concentration:

Emissions during construction would be limited to exhaust emissions and dust from contractor vehicles.

d) Waste permit

Will any aspect of the activity produce waste that will require a waste permit in terms of the NEM:WA?

YES	NO ✓
-----	------

If YES, please submit evidence that an application for a waste permit has been submitted to the competent authority

e) Generation of noise

Aristea and Town site

Will the activity generate noise?

YES	NO ✓
YES	NO ✓

If YES, is it controlled by any legislation of any sphere of government?

If YES, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

If NO, describe the noise in terms of type and level:

Noise would be generated during construction, but limited to construction vehicles during the day. During operational phase, noise would emanate from generator on site when Eskom power is not available, but since the Aristea site is located 1.5km from town, this would unlikely cause any disturbance. The town site would not generate any additional noise during operational phase. Noise is dampened here by the waves of the sea.

13. WATER USE

Please indicate the source(s) of water that will be used for the activity by ticking the appropriate box(es):

Aristea

Municipal ✓ - would be brought in from town by truck when rainwater tanks run dry	Water board	Groundwater	River, stream, dam or lake	Other ✓ - rainwater tanks for drinking / seawater for process	The activity will not use water
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Town

Municipal ✓	Water board	Groundwater	River, stream, dam or lake	Other Sea water for process ✓	The activity will not use water
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If water is to be extracted from groundwater, river, stream, dam, lake or any other natural feature, please indicate the volume that will be extracted per month:

n.a. litres

Does the activity require a water use authorisation (general authorisation or water use license) from the Department of Water Affairs?

YES	NO ✓
-----	------

If YES, please provide proof that the application has been submitted to the Department of Water Affairs.

14. ENERGY EFFICIENCY

Describe the design measures, if any that have been taken to ensure that the activity is energy efficient:

Design of the facilities would be done in such a way to reach optimal energy efficiency (e.g. natural air conditioning / turbo vents may be installed to reduce heat inside building (energy efficient air conditioning)) and the latest available technology would be investigated for further energy efficiency.

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

For the Aristeia site 4 x 10 000l tanks would be built at the highest point of the site. At night, when electricity usage is at its lowest, water will be pumped to the tanks. During the day this water would be gravitated back to the facility. It would be considered in future to have it flowing over a turbine, which would generate sufficient power to run the facility during the day.

SECTION B: SITE/AREA/PROPERTY DESCRIPTION

Important notes:

- For linear activities (pipelines, etc) as well as activities that cover very large sites, it may be necessary to complete 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.

Section B Copy No. (e.g. A): n.a.

- Paragraphs 1 - 6 below must be completed for each alternative.

Note – since only two site alternatives exist and both are being considered together as the preferred alternative, the details of each site alternative are provided. No feasible activity alternatives exist and layouts are limited to the constraints of each site alternative.

- Has a specialist been consulted to assist with the completion of this section? YES✓ NO

If YES, please complete the form entitled “Details of specialist and declaration of interest” for each specialist thus appointed and attach it in Appendix I. All specialist reports must be contained in Appendix D.

Note – only one specialist study was commissioned for the purpose of the BAR. However, other relevant specialist studies have been done in the past and these have been included in this report for reference.

Property description/ physical address:	Province	Northern Cape	
	District Municipality	Garies (Namakwaland District)	
	Local Municipality	Kamiesberg Municipality	
	Ward Number(s)	NC064	
	Farm name and number	Erf 1 Hondeklipbaai	
	Portion number	Erf 4,5,6 and 7, erf 64 (portion 1), erf 283	
	SG Code	C05300050000000100000 (Aristea Site) C05300050000000400000 (Town Site) C05300050000000500000 (Town Site) C05300050000000600000 (Town Site) C05300050000000700000 (Town Site) C053000500000006400001 (Town Site) C05300050000028300000 (Town Site)	
Where a large number of properties are involved (e.g. linear activities), please attach a full list to this application including the same information as indicated above.			
Current land-use zoning as per local municipality IDP/records:	Records not currently available, assumed Agriculture with mining rights, to be confirmed by Municipality planning section.		
In instances where there is more than one current land-use zoning, please attach a list of current land use zonings that also indicate which portions each use pertains to, to this application.			
Is a change of land-use or a consent use application required?			YES NO✓

1. GRADIENT OF THE SITE

Indicate the general gradient of the site.

Alternative S1: ARISTEA

Flat	1:50 – 1:20	1:20 – 1:15 ✓	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper than 1:5
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Alternative S2: TOWN

Flat ✓	1:50 – 1:20	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper than 1:5
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Alternative S3 (if any): not applicable

Flat	1:50 – 1:20	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper than 1:5
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2. LOCATION IN LANDSCAPE

Indicate the landform(s) that best describes the site:

Alternative S1: ARISTEA

2.1 Ridgeline	<input type="checkbox"/>	2.4 Closed valley	<input type="checkbox"/>	2.7 Undulating plain / low hills	<input type="checkbox"/>
2.2 Plateau	<input type="checkbox"/>	2.5 Open valley	<input type="checkbox"/>	2.8 Dune	<input checked="" type="checkbox"/>
2.3 Side slope of hill/mountain	<input type="checkbox"/>	2.6 Plain	<input type="checkbox"/>	2.9 Seafront	<input checked="" type="checkbox"/>

Alternative S2: TOWN

2.1 Ridgeline	<input type="checkbox"/>	2.4 Closed valley	<input type="checkbox"/>	2.7 Undulating plain / low hills	<input type="checkbox"/>
2.2 Plateau	<input type="checkbox"/>	2.5 Open valley	<input type="checkbox"/>	2.8 Dune	<input type="checkbox"/>
2.3 Side slope of hill/mountain	<input type="checkbox"/>	2.6 Plain	<input type="checkbox"/>	2.9 Seafront	<input checked="" type="checkbox"/>

3. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

Is the site(s) located on any of the following?

	Alternative S1: ARISTEA		Alternative S2: TOWN		Alternative S3: Not applicable	
Shallow water table (less than 1.5m deep)	YES	NO ✓	YES	NO ✓	YES	NO
Dolomite, sinkhole or doline areas	YES	NO ✓	YES	NO ✓	YES	NO
Seasonally wet soils (often close to water bodies)	YES	NO ✓	YES	NO ✓	YES	NO
Unstable rocky slopes or steep slopes with loose soil	YES	NO ✓	YES	NO ✓	YES	NO
Dispersive soils (soils that dissolve in water)	YES	NO ✓	YES	NO ✓	YES	NO
Soils with high clay content (clay fraction more than 40%)	YES	NO ✓	YES	NO ✓	YES	NO
Any other unstable soil or geological feature	YES	NO ✓	YES	NO ✓	YES	NO
An area sensitive to erosion	YES ✓	NO	YES	NO ✓	YES	NO

If you are unsure about any of the above or if you are concerned that any of the above aspects may be an issue of concern in the application, an appropriate specialist should be appointed to assist in the completion of this section. Information in respect of the above will often be available as part of the project information or at the planning sections of local authorities. Where it exists, the 1:50 000 scale Regional Geotechnical Maps prepared by the Council for Geo Science may also be consulted.

4. GROUNDCOVER

Indicate the types of groundcover present on the site. The location of all identified rare or endangered species or other elements should be accurately indicated on the site plan(s).

Namaqualand Coastal Duneveld, conservation value – low.

Alternative S1: ARISTEA

Natural veld - good condition ^E ✓	Natural veld with scattered aliens ^E	Natural veld with heavy alien infestation ^E	Veld dominated by alien species ^E	Gardens
Sport field	Cultivated land	Paved surface	Building or other structure	Bare soil

Alternative S2: TOWN

Natural veld - good condition ^E	Natural veld with scattered aliens ^E	Natural veld with heavy alien infestation ^E	Veld dominated by alien species ^E	Gardens
Sport field	Cultivated land	Paved surface ✓	Building or other structure ✓	Bare soil ✓

If any of the boxes marked with an “^E” is ticked, please consult an appropriate specialist to assist in the completion of this section if the environmental assessment practitioner doesn’t have the necessary expertise.

Refer to botanical specialist report completed in 2007 (used as reference only, not completed as part of this assessment) as well as BGIS report generated from the SANBI biodiversity advisor website. According to personal account and photographic records, the Aristeia site has not changed up to current times and remains an undisturbed area in this specific location.

5. SURFACE WATER

Indicate the surface water present on and or adjacent to the site and alternative sites?

Alternative S1: ARISTEA

Perennial River	YES	NO ✓	UNSURE
Non-Perennial River	YES	NO ✓	UNSURE
Permanent Wetland	YES	NO ✓	UNSURE
Seasonal Wetland	YES	NO ✓	UNSURE
Artificial Wetland	YES	NO ✓	UNSURE
Estuarine / Lagoonal wetland	YES	NO ✓	UNSURE

PROPOSED HONDEKLIP BAY ABALONE FARM:
BASIC ASSESSMENT REPORT – MAY 2013

If any of the boxes marked YES or UNSURE is ticked, please provide a description of the relevant watercourse.

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Alternative S2: TOWN

Perennial River	YES	NO ✓	UNSURE
Non-Perennial River	YES	NO ✓	UNSURE
Permanent Wetland	YES	NO ✓	UNSURE
Seasonal Wetland	YES	NO ✓	UNSURE
Artificial Wetland	YES	NO ✓	UNSURE
Estuarine / Lagoonal wetland	YES	NO ✓	UNSURE

If any of the boxes marked YES or UNSURE is ticked, please provide a description of the relevant watercourse.

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6. LAND USE CHARACTER OF SURROUNDING AREA

Indicate land uses and/or prominent features that currently occur within a 500m radius of the site and give description of how this influences the application or may be impacted upon by the application:

Alternative S1: ARISTEA SITE

Natural area ✓	Dam or reservoir	Polo fields
Low density residential	Hospital/medical centre	Filling station ^H
Medium density residential	School	Landfill or waste treatment site
High density residential	Tertiary education facility	Plantation
Informal residential ^A	Church	Agriculture
Retail commercial & warehousing	Old age home	River, stream or wetland
Light industrial	Sewage treatment plant ^A	Nature conservation area
Medium industrial ^{AN}	Train station or shunting yard ^N	Mountain, koppie or ridge
Heavy industrial ^{AN}	Railway line ^N	Museum
Power station	Major road (4 lanes or more) ^N	Historical building
Office/consulting room	Airport ^N	Protected Area
Military or police base/station/compound	Harbour	Graveyard
Spoil heap or slimes dam ^A	Sport facilities	Archaeological site
Quarry, sand or borrow pit ✓	Golf course	Other land uses (describe) ✓ Open Cast Mine, Sea

PROPOSED HONDEKLIP BAY ABALONE FARM:
BASIC ASSESSMENT REPORT – MAY 2013

If any of the boxes marked with an "N" are ticked, how will this impact / be impacted upon by the proposed activity?

If any of the boxes marked with an "An" are ticked, how will this impact / be impacted upon by the proposed activity? Specify and explain:

If any of the boxes marked with an "H" are ticked, how will this impact / be impacted upon by the proposed activity? Specify and explain:

Alternative S2: TOWN SITE

Natural area	Dam or reservoir	Polo fields
Low density residential	Hospital/medical centre	Filling station ^H
Medium density residential ✓	School	Landfill or waste treatment site
High density residential	Tertiary education facility	Plantation
Informal residential ^A	Church	Agriculture
Retail commercial & warehousing	Old age home	River, stream or wetland
Light industrial ✓	Sewage treatment plant ^A	Nature conservation area
Medium industrial ^{AN}	Train station or shunting yard ^N	Mountain, koppie or ridge
Heavy industrial ^{AN}	Railway line ^N	Museum
Power station	Major road (4 lanes or more) ^N	Historical building
Office/consulting room	Airport ^N	Protected Area
Military or police base/station/compound	Harbour ✓	Graveyard
Spoil heap or slimes dam ^A	Sport facilities	Archaeological site
Quarry, sand or borrow pit	Golf course	Other land uses (describe) ✓ Sea

If any of the boxes marked with an "N" are ticked, how will this impact / be impacted upon by the proposed activity?

If any of the boxes marked with an "An" are ticked, how will this impact / be impacted upon by the proposed activity? Specify and explain:

If any of the boxes marked with an "H" are ticked, how will this impact / be impacted upon by the proposed activity? Specify and explain:

Does the proposed site (including any alternative sites) fall within any of the following:

S1 ARISTEA and S2 TOWN SITE:

Critical Biodiversity Area (as per provincial conservation plan)	YES	NO ✓
Core area of a protected area?	YES	NO ✓
Buffer area of a protected area?	YES	NO ✓
Planned expansion area of an existing protected area?	YES	NO ✓
Existing offset area associated with a previous Environmental Authorisation?	YES	NO ✓
Buffer area of the SKA?	YES	NO ✓

If the answer to any of these questions was YES, a map indicating the affected area must be included in Appendix A.

7. CULTURAL/HISTORICAL FEATURES

Are there any signs of culturally or historically significant elements, as defined in section 2 of the National Heritage Resources Act, 1999, (Act No. 25 of 1999), including Archaeological or paleontological sites, on or close (within 20m) to the site? If YES, explain:

YES ✓	NO
Uncertain	

Please refer to specialist findings for each site below.

If uncertain, conduct a specialist investigation by a recognised specialist in the field (archaeology or palaeontology) to establish whether there is such a feature(s) present on or close to the site. Briefly explain the findings of the specialist:

S1 ARISTEA SITE

Findings and recommendations from the HIA Report compiled by Jayson Orton, ACO Associates cc, 15 Augustus 2012 (see Appendix D1 for a copy of the report):

Archaeological impacts will undoubtedly occur, but these can be mitigated. The extent of the mitigation that will be required can only be realised with test excavation, although some estimate based on surface observations has been included in the appendix. With the small space between the existing gravel road and the development footprint it is likely that damage will occur in this area unless site access is strictly controlled.

It is recommended that the project may proceed so long as the following are adhered to:

- The high-lying ground with very dense archaeology should be considered a no-go area and protected from harm during construction;
- The final layout should be submitted to the archaeologist in order to determine the extent of test excavations that will be required;
- Test excavations should then be carried out and further mitigation requirements made;
- Formal archaeological mitigation will then be required and no-go areas can be better defined; and
- If any burials are uncovered at any stage during development of the site then work in the immediate area should halt and the bones should be protected *in situ*. An archaeologist will need to be contracted to remove the remains at the expense of the developer.

S2 TOWN SITE

Refer to the HIA Progress Report and preliminary findings, prepared by Ron Viney and J Marx, 20 February 2012. Note that this report was not requested as part of the basic assessment process, but have been included to provide details of heritage resources at the Town site and to show how this has been taken into account for the proposed expansion (See Appendix D2 for a copy of the report). The following findings were made:

1. Certain parts of the Main Building are older than 60 years with building having commenced in February of 1951. Any alterations to these parts prior to the Record of Decision terms of NEMA and the NHRA requires a permit from Northern Cape Heritage in terms of section 34 of the National Heritage Resources Act, 25 of 1999 [NHRA].
2. The Workshop and cold Storage date from pre ca 1950 and also require a permit in terms of section 34 of the NHRA.
3. The remains of the “Ou Lokasie” are still extant. These have already been impacted upon by the current phase of the project.
4. The pump station and water tanks on the hill to the south east overlooking the Main Building are placed on top of the foundations and floor of one of the pre ca 1950 dwellings. The pipeline from the pump station to the sea has also been covered up with the debris from dwellings and runs past a number of features. We were unable to ascertain as to whether an HIA had been conducted in terms of section 38 of the NHRA when the pump station and pipeline were laid out. Although the impact has been minimal care should be taken not to disturb the remains.
5. The Police Station, Post Office, Shop and Pay Office were located approximately where the abalone tanks are currently situated. Care should be taken if any further excavation of this area is contemplated.
6. The “Wag Weg” [patrol road] ran through erf 64. It is not certain at this time what has happened to the road servitude.
7. Certain features are historically significant and should be retained as far as possible, especially the crayfish tanks and the old change rooms in section „B” of the Main building.
8. Window openings on the seaward side of the main building are very vulnerable to storms. It is recommended that these be bricked up rather than repaired.

It is our opinion that the significance of impacts on heritage resources due to the proposed expansions at the Town site would be low and that the required permits for demolition are to be applied for (see assessment in Appendix F).

Will any building or structure older than 60 years be affected in any way?

YES✓	NO
YES✓	NO

Is it necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999)?

If YES, please provide proof that this permit application has been submitted to SAHRA or the relevant provincial authority.

Note - A permit application will be lodged upon receipt of environmental authorisation. Although the SAHRA has been informed of the proposed development, no comment was received from them.

8. SOCIO-ECONOMIC CHARACTER

a) Local Municipality

Please provide details on the socio-economic character of the local municipality in which the proposed site(s) are situated.

Level of unemployment:

According to a study conducted in 2007-8 by the University of Stellenbosch, in terms of employment, a total of 142 residents over the age of 14 worked for a period of time during 2007. Of men in this group, 53% were working and, of women, 36% were working. Of the working residents, half the men and a quarter of the women work outside of Hondeklip Bay. Most of them would prefer to work in Hondeklip Bay. There also seems to be a large difference in income between residents working outside of Hondeklip Bay and those working in the town. Those who work outside of Hondeklip Bay earn considerably more than those working in Hondeklip Bay. Hondeklip Bay workers are mostly employed in mining, local government, fisheries and tourism.

Economic profile of local municipality:

The Stellenbosch socio-economic study found that monthly household incomes in Hondeklip Bay are less than half the monthly income of Namakwa District Municipality households, namely R1305.60 compared to R3200. The low income levels of Hondeklip Bay households indicate existing levels of poverty and highlight the need for long term, stable employment opportunities in the town.

Level of education:

In terms of education, there are very low education levels among the community. A third of adults have obtained grade 12 and only 4% have obtained a further education and training qualification. There are high levels of unemployment and poverty in the town. With the closure of diamond mines in Namaqualand and declining fishing opportunities, more than half of the adults in the town are not economically active (unable to work or choose not to work) and therefore not engaged in gainful employment. The main reason for being "not economically active" is due to unemployment (54 residents).

b) Socio-economic value of the activity

What is the expected capital value of the activity on completion?
 What is the expected yearly income that will be generated by or as a result of the activity?
 Will the activity contribute to service infrastructure?
 Is the activity a public amenity?
 How many new employment opportunities will be created in the development and construction phase of the activity/ies?
 What is the expected value of the employment opportunities during the development and construction phase?
 What percentage of this will accrue to previously disadvantaged individuals?
 How many permanent new employment opportunities will be created during the operational phase of the activity?
 What is the expected current value of the employment opportunities during the first 10 years?
 What percentage of this will accrue to previously disadvantaged individuals?

R25-35 million
R25-35 million
YES NO✓
YES NO✓
30
R3 000 000
100%
30
R19,8 million
72%

Note - By creating more employment opportunities in an alternative economic sector to mining, the economy is diversified so that the decline of one primary sector would give way to the emergence of another. With the development of aquaculture as an alternative to mining, more indirect positive impacts could occur. This could be in the form of developing abalone processing plants which could create more employment opportunities. Additionally, the construction of processing plants itself could create temporary employment opportunities. Aquaculture may also result in other spin off industries such as abalone processing, secondary business development in the town and surrounding areas, stimulation of the retail sector in the town, etc

9. 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.

Note – Biodiversity considerations are applicable to the Aristeia site only as the Town site does not contain any biodiversity features.

- a) **Indicate 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)	ESA – according to the SANBI information, the criteria for this land-use category are areas that support key bio-diversity resources or ecological processes. The entire coastline of the Kamiesberg municipality has been marked as ESA

b) Indicate 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	%	85%
Near Natural (includes areas with low to moderate level of alien invasive plants)	%	
Degraded (includes areas heavily invaded by alien plants)	%	
Transformed (includes cultivation, dams, urban, plantation, roads, etc)	15%	Previously used for mining, road

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 unchannelled wetlands, flats, seeps pans, and artificial wetlands)			Estuary		Coastline	
	Endangered							
	Vulnerable							
	Least Threatened ✓	YES	NO	UNSURE	YES	NO	YES ✓	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)

Dune strandveld – see botanical specialist report, Appendix D3 as well as Namakwa District Fine Scale plan (BGIS map), Appendix D4.

SECTION C: PUBLIC PARTICIPATION

1. ADVERTISEMENT AND NOTICE

Publication name	N.a. deviation was requested and granted as no newspaper is distributed regularly in Hondeklip Bay. Additional notices were put up in town – proof to be include in final Basic Assessment Report	
Date published	n.a.	
Site notice position	Latitude	Longitude
Aristea Site	30°20'18.73"S	17°16'39.26"E
Town site	30°19'3.39"S	17°16'27.35"E
Date placed	4 March 2013	

Include proof of the placement of the relevant advertisements and notices in Appendix E1.

2. DETERMINATION OF APPROPRIATE MEASURES

Provide details of the measures taken to include all potential I&APs as required by Regulation 54(2)(e) and 54(7) of GN R.543.

According to Chapter 6, Section 54 (5) of the Environmental Impact Assessment Regulations, deviation from some requirements of sub regulation (2) were requested and granted. Our motivation was as follows - The draft BAR was previously advertised and a public meeting was held (project details were the same, although the Regulations have changed in the meantime). Due to the locality of the project, a newspaper advertisement is not effective and we proposed to put up notices at strategic locations in town (i.e. pilot project site, shops and municipal office). Preliminary notifications of the start of an application for environmental authorisation and opportunity for registration were therefore put up at various locations in town.

Notices on the required size have been placed on the two sites in question. These notices provide details of the proposed project, listed activities, availability of the draft Basic Assessment report and where comments can be submitted to.

Potential Interested and affected parties identified in previous public participation processes in Hondeklip Bay have been updated and included on a list, to which letters informing them of the opportunity to register and comment have been sent.

Key stakeholders (other than organs of state) identified in terms of Regulation 54(2)(b) of GN R.543:

NAME	SURNAME	ORGANISATION	Tel/Cell	FAX NO	E-MAIL ADDRESS
Bernard and Tersia	Hibbard	Hondeklip Bay land owner	012 804 3990		tersia@hibbard.co.za
Tarien	Basson	Coastcare	021 402 3098	021 419 6942	tbasson@daff.gov.za
Carmen	Visser	Rock Lobster Sea Management Area (SANCOR)	021 402 3536		sancor@daff.gov.za
Unita	Ferreira	Transhex - SA Landafdeling	021 937 2017	021 937 2100	unitaf@transhex.co.za
Attie	Hough	Honnehokke Self Catering Chalets	027 692 3041	0862754657	attiehough@gmail.com
Mariolize	Coetzee	De Beers - Namaqualand Mines	027 807 2910	027 807 2982	mariolize.coetzee@debeersgroup.com
Mynderd and Ina	Vosloo	Hondeklip Bay Resident	0722192452		myv@mweb.co.za
Koos	Viviers	Hondeklip Bay Resident	0822046206		
Leon	Kotze	Hondeklip Bay Resident			
Pierre	Van der Westhuizen	Hondeklip Bay Resident			
Frans	Mouton	Hondeklipbaai Perlemoen Loodsprojek		027 692 3042	
Cecil	Cloete	Hondeklipbaai Perlemoen Loodsprojek		027 692 3042	
Corete	Petersen	Hondeklipbaai & Kamiesberg Munisipaliteit	027 692 3066	0276923066	No email facility

Include proof that the key stakeholder received written notification of the proposed activities as Appendix E2. This proof may include any of the following:

- e-mail delivery reports;
- registered mail receipts;
- courier waybills;
- signed acknowledgements of receipt; and/or
- or any other proof as agreed upon by the competent authority.

3. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

Summary of main issues raised by I&APs	Summary of response from EAP
Lack of notification and information about the project, language	Although a new application, the project has been introduced to the community at four meetings already. The draft report was the first communication in terms of a new application submitted in February 2013. Ecosense adhered to the minimum requirements for notification of possible stakeholders. Correspondence would be provided in Afrikaans upon request (only one request received).
Objection against conduct of the University in town, lease of buildings	Issues with the university should be dealt with outside this process. Contracts regarding lease of buildings are legitimate and should others wish to apply for its use, they have a right to do so.
Access to the coast	Access would not be compromised; the coast would not be fenced off.
Amount of employment opportunities	As stated in the report, approximately 30 initially, with the possibility of future opportunities for small scale farmers
Poaching	Security plan would be implemented, details confidential for obvious reasons
Water quality monitoring	Erroneous references were made to a sea based ranching application in the same area, also submitted to the DAFF. No current guidelines and requirements exist in terms of monitoring water quality parameters for land-based abalone farming and the discharge of seawater associated with it. In the absence of such guideline the operation will monitor temperature, dissolved oxygen, pH and suspended solids.
Biosecurity and animal health monitoring	Applicable bio-security and animal health monitoring by a qualified veterinarian has been specified in the OEMP
Requests for registration as IAP and further information	Requests for registration was acknowledged, noted and applied – see list of registered IAPs

4. COMMENTS AND RESPONSE REPORT

The practitioner must record all comments received from I&APs and respond to each comment before the Draft BAR is submitted. The comments and responses must be captured in a comments and response report as prescribed in the EIA regulations and be attached to the Final BAR as Appendix E3.

Note – no comments were received on this application before the Draft BAR was submitted to the DEA.

5. AUTHORITY PARTICIPATION

Authorities and organs of state identified as key stakeholders:

NAME	SURNAME	ORGANISATION	Tel/Cell	FAX NO	E-MAIL ADDRESS
Betsie	Taylor	Dept. Agriculture, Forestry & Fisheries	021 402 3036	021 419 6942	btaylor@daff.gov.za
Ryan	Peter	Deputy Director: Coastal Conservation Strategies	021 819 2490		jpeter@environment.gov.za
Carmen	Visser	Rock Lobster Sea Management Area (SANCOR)	021 402 3536		sancor@daff.gov.za
The Regional Manager	Att Ms C Abrahams	Department of Public Works	053-8385287	053-8331153	carmen.abrahams@dpw.gov.za
Hendrik	Smith	Department of Minerals and Energy	021 427 1000	021 427 1047	hendrik.smith@dmr.gov.za
Ms L	Karsten	NC Dept of Environmental Affairs and Nature Conservation	027-718 8814	027-718 8800	lucillekarsten@yahoo.com
Dr. Mariagrazia	Galimberti	South African Heritage Resources Agency	021 462 4502	021 462 4509	mgalimberti@sahra.org.za
Unita	Ferreira	Transhex - SA Landafdeling	021 937 2017	021 937 2100	unitaf@transhex.co.za
Mr. Joseph	Cloete	Kamiesberg Municipality	027 652 8011	027 652 8001	brandon@kamiesberg.gov.za
Me. D	Beukes	Kamiesberg Municipality	027 652 8011	027 652 8001	daphneb@kamiesberg.co.za
Brandon		Kamiesberg Municipality	28 528 8000	28 652 8001	brandon@kamiesberg.co.za
Corete	Petersen	Hondeklipbaai & Kamiesberg Munisipaliteit	027 692 3066	0276923066	No email facility
Mcee	Morris	Department of Water Affairs	054 338 5836	054 334 0205	
Ms. Madeleine	Brandt	Namakwa Distriksmunisipaliteit	0277128000	0277128040	janniel@namakwa-dm.gov.za
Aubrey	Baartman	Nama Khoi Local Municipality (Municipal Manager)	0277188100		-
Deon	Magerman	Nama Khoi Local Municipality	0277188100		deon.magerman@namakhoi.gov.za

Include proof that the Authorities and Organs of State received written notification of the proposed activities as appendix E4.

In the case of renewable energy projects, Eskom and the SKA Project Office must be included in the list of Organs of State.

6. CONSULTATION WITH OTHER STAKEHOLDERS

Note that, for any activities (linear or other) where deviation from the public participation requirements may be appropriate, the person conducting the public participation process may deviate from the requirements of that sub-regulation to the extent and in the manner as may be agreed to by the competent authority.

Proof of any such agreement must be provided, where applicable. Application for any deviation from the regulations relating to the public participation process must be submitted prior to the commencement of the public participation process.

A list of registered I&APs must be included as appendix E5.

Copies of any correspondence and minutes of any meetings held must be included in Appendix E6.

SECTION D: IMPACT ASSESSMENT

The assessment of impacts must adhere to the minimum requirements in the EIA Regulations, 2010, and should take applicable official guidelines into account. The issues raised by interested and affected parties should also be addressed in the assessment of impacts.

1. IMPACTS THAT MAY RESULT FROM THE PLANNING AND DESIGN, CONSTRUCTION, OPERATIONAL, DECOMMISSIONING AND CLOSURE PHASES AS WELL AS PROPOSED MANAGEMENT OF IDENTIFIED IMPACTS AND PROPOSED MITIGATION MEASURES

Provide a summary and anticipated significance of the potential direct, indirect and cumulative impacts that are likely to occur as a result of the planning and design phase, construction phase, operational phase, decommissioning and closure phase, including impacts relating to the choice of site/activity/technology alternatives as well as the mitigation measures that may eliminate or reduce the potential impacts listed. This impact assessment must be applied to all the identified alternatives to the activities identified in Section A(2) of this report.

Note – no site alternatives currently exist for each of the respective sites and has been indicated as such

PLANNING AND DESIGN PHASE

Alternative S1 (preferred alternative) ARISTEA SITE

Direct impacts:

Economic investment

Indirect impacts:

Job creation during construction and operation

Cumulative impacts:

See construction and operational phase impacts

Alternative S1 (preferred alternative) TOWN SITE

Direct impacts:

Economic investment

Indirect impacts:

Job creation during construction and operation

Cumulative impacts:

See construction and operational phase impacts

Alternative S3 not applicable

Direct impacts:

Indirect impacts:

Cumulative impacts:

No-go alternative (compulsory)

Direct impacts:

No commercial viability, no further funding for the pilot project

Indirect impacts:

Job losses

Cumulative impacts:

Further decline in Northern Cape rural economy

Mitigation measures that may eliminate or reduce the potential impacts listed above:

Alternative S1 ARISTEA

None – positive impact

Alternative S1 TOWN

None – positive impact

Alternative S3

None by project proponent, other government initiatives to be implemented for creation.

PROPOSED HONDEKLIP BAY ABALONE FARM:
BASIC ASSESSMENT REPORT – MAY 2013

Potential activity/technology alternative related impacts (as appropriate) that are likely to occur as a result of the planning and design phase:

Alternative A1 (preferred alternative) ARISTEA / TOWN – ABALONE FARM NO FEASIBLE / REASONABLE TECHNOLOGY ALTERNATIVES EXIST TO REACH PROJECT GOALS

Direct impacts:

Indirect impacts:

Cumulative impacts:

Alternative A2 NO FEASIBLE / REASONABLE TECHNOLOGY ALTERNATIVES EXIST TO REACH PROJECT GOALS

Direct impacts:

N.a.

Indirect impacts:

N.a.

Cumulative impacts:

N.a.

Alternative A3 not applicable

Direct impacts:

Indirect impacts:

Cumulative impacts:

No-go alternative (compulsory)

Direct impacts:

N.a., status quo would remain

Indirect impacts:

N.a., status quo would remain

Cumulative impacts:

N.a., status quo would remain

CONSTRUCTION PHASE

Potential site alternative related impacts (as appropriate) that are likely to occur as a result of the construction phase:

Alternative S1 (preferred alternative) ARISTEA SITE

Direct impacts:

Pollution

Noise

Dust

Loss of vegetation

Archaeological impacts

Indirect impacts:

Job creation

Cumulative impacts:

None significant

See operational impacts

Alternative S1 TOWN SITE

Direct impacts:

Pollution

Noise

Dust

Heritage impacts

Indirect impacts:

Disturbance of marine habitat and water quality due to pollution

Job creation

Cumulative impacts:

None significant

See operational impacts

Alternative S3 not applicable

Direct impacts:

Indirect impacts:

PROPOSED HONDEKLIP BAY ABALONE FARM:
BASIC ASSESSMENT REPORT – MAY 2013

Cumulative impacts:

No-go alternative (compulsory)

Direct impacts:

None – status quo would remain

Indirect impacts:

No improvement of infrastructure

No job creation

Cumulative impacts:

None

Mitigation measures that may eliminate or reduce the potential impacts listed above:

Alternative S1 Aristea

Alternative S1 Town

Alternative S3 not applicable

Implement Environmental Management Programme – construction phase specifications

Implement Environmental Management Programme – construction phase specifications

Potential activity/technology alternative related impacts (as appropriate) that are likely to occur as a result of the construction phase:

Alternative A1 (preferred alternative) ARISTEA / TOWN ABALONE FARM

Direct impacts:

Pollution

Noise

Dust

Pollution

Indirect impacts:

Improvement of infrastructure

Job creation

Cumulative impacts:

Improvement in socio-economic profile of the town

Alternative A2 NO FEASIBLE / REASONABLE TECHNOLOGY ALTERNATIVES EXIST TO REACH PROJECT GOALS

Direct impacts:

N.a.

Indirect impacts:

N.a.

Cumulative impacts:

N.a.

Alternative A3 not applicable

Direct impacts:

Indirect impacts:

Cumulative impacts:

No-go alternative (compulsory)

Direct impacts:

No construction impacts, status quo would remain

Indirect impacts:

No additional job creation

Cumulative impacts:

None

Mitigation measures that may eliminate or reduce the potential impacts listed above:

Alternative A1:

Alternative A2:

Alternative A3:

Implement Environmental Management Programme – construction phase specifications

Implement Environmental Management Programme – construction phase specifications for farm site

Not applicable

OPERATIONAL PHASE

Potential site alternative related impacts (as appropriate) that are likely to occur as a result of the operational phase:

Alternative S1 (preferred alternative) ARISTEA

Direct impacts:

Pollution by effluent, pesticides, hormones, etc

Job creation

Visual

PROPOSED HONDEKLIP BAY ABALONE FARM:
BASIC ASSESSMENT REPORT – MAY 2013

Waste Generation
Indirect impacts:
 Skills development
 Disturbance of marine habitat due to pollution of seawater
Cumulative impacts:
 Income to community and international opportunities

Alternative S1 TOWN

Direct impacts:
 Pollution by effluent, pesticides, hormones, etc
 Job creation
 Waste Generation
Indirect impacts:
 Skills development
 Disturbance of marine habitat due to pollution of seawater
Cumulative impacts:
 Income to community and international opportunities

Alternative S3 not applicable

Direct impacts:

Indirect impacts:

Cumulative impacts:

No-go alternative (compulsory)

Direct impacts:
 Project would close as it is not feasible to continue on small scale
Indirect impacts:
 No job creation or skills development
Cumulative impacts:
 No Income to community or international opportunities

Mitigation measures that may eliminate or reduce the potential impacts listed above:

Alternative S1	Alternative S2	Alternative S3
Implement environmental management programme – operational phase specifications.	Implement environmental management programme – operational phase specifications.	Not applicable

Potential activity/technology alternative related impacts (as appropriate) that are likely to occur as a result of the operational phase:

Alternative A1 (preferred alternative) ARISTEA / TOWN ABALONE FARM

Direct impacts:
 Job creation
 Theft / poaching
Indirect impacts:
 Skills development
Cumulative impacts:
 Income to community and international opportunities

Alternative A2 NO FEASIBLE / REASONABLE TECHNOLOGY ALTERNATIVES EXIST TO REACH PROJECT GOALS

Direct impacts:
 N.a.
Indirect impacts:
 N.a.
Cumulative impacts:
 N.a.

Alternative A3 not applicable

Direct impacts:

Indirect impacts:

Cumulative impacts:

No-go alternative (compulsory)

Direct impacts:

PROPOSED HONDEKLIP BAY ABALONE FARM:
BASIC ASSESSMENT REPORT – MAY 2013

Project would close as it is not feasible to continue on small scale.

Indirect impacts:

Job losses and no job creation or skills development.

Cumulative impacts:

No Income to community or international opportunities.

Mitigation measures that may eliminate or reduce the potential impacts listed above:

Alternative A1	Alternative A2	Alternative A3
Implement Environmental Management Programme – operational phase specifications	Implement Environmental Management Programme – operational phase specifications	Not applicable

DECOMMISSIONING AND CLOSURE PHASE

Potential site alternative related impacts (as appropriate) that are likely to occur as a result of the decommissioning or closure phase:

Alternative S1 (preferred alternative) ARISTEA

Direct impacts:

Construction related impacts as above

Indirect impacts:

N.a.

Cumulative impacts:

N.a.

Alternative S1 TOWN

Direct impacts:

Construction related impacts as above

Indirect impacts:

N.a.

Cumulative impacts:

N.a.

Alternative S3 not applicable

Direct impacts:

Indirect impacts:

Cumulative impacts:

No-go alternative (compulsory)

Direct impacts:

Construction related impacts as above for decommissioning of the pilot project

Indirect impacts:

N.a.

Cumulative impacts:

N.a.

Mitigation measures that may eliminate or reduce the potential impacts listed above:

Alternative S1 ARISTEA	Alternative S1 TOWN	Alternative S3
Compile and Implement Decommissioning and Environmental Management Programme – construction phase specifications	Compile and Implement Decommissioning and Environmental Management Programme – construction phase specifications	Not applicable

Potential activity/technology alternative related impacts (as appropriate) that are likely to occur as a result of the decommissioning and closure phase:

Alternative A1 ARISTEA / TOWN ABALONE FARM

Direct impacts:

Construction related impacts as above

Indirect impacts:

N.a.

Cumulative impacts:

N.a.

Alternative A2 NO FEASIBLE / REASONABLE TECHNOLOGY ALTERNATIVES EXIST TO REACH PROJECT GOALS

Direct impacts:

Indirect impacts:

Cumulative impacts:

Alternative S3 not applicable

Direct impacts:

Indirect impacts:

Cumulative impacts:

No-go alternative (compulsory)

Direct impacts:

Construction related impacts as above for decommissioning of the pilot project

Indirect impacts:

N.a.

Cumulative impacts:

N.a.

Mitigation measures that may eliminate or reduce the potential impacts listed above:

Alternative S1 ARISTEA	Alternative S1 TOWN	Alternative S3
Implement Environmental Management Programme – construction / decommissioning phase specifications	Implement Environmental Management Programme – construction / decommissioning phase specifications	Not applicable

A complete impact assessment in terms of Regulation 22(2)(i) of GN R.543 must be included as Appendix F.

2. ENVIRONMENTAL IMPACT STATEMENT

Taking the assessment of potential impacts into account, please provide an environmental impact statement that summarises the impact that the proposed activity and its alternatives may have on the environment after the management and mitigation of impacts have been taken into account, with specific reference to types of impact, duration of impacts, likelihood of potential impacts actually occurring and the significance of impacts.

The preferred alternative would be a combination of both sites together for maximum utilization of space and existing facilities and maximum realisation of socio economic benefits.

The alternative to using both sites would be use of either the one or the other, with the Aristea site being the next preferred alternative due to larger size in order to realise commercial viability and maximise socio-economic benefits.

Alternative S1S2 A1 (preferred alternative) ARISTEA and TOWN site – Abalone Farm

- Construction impacts (dust, noise, visual) would be of temporary nature, i.e. only during construction period and can be minimised through implementation of a construction environmental management plan as included in the EMPr.
- Construction impacts as identified would have a low to no significance after implementation of the CEMP (mitigation), except for the loss of vegetation, which can be regarded to have Medium significance. This impact can be confined to the development footprint area only though the implementation of specifications included in the CEMP. Landscaping, where practical within the development footprint, should utilised local indigenous species.
- Archaeological impacts can be mitigated through identification of no-go areas (though formal test excavations) and would have a low significance after mitigation.
- Potential Operational impacts include:
 - pollution, although likely to be small quantities from spilled disinfectants or other chemicals used on the premises and significance is likely to be low.
 - Poaching, as abalone poaching is a common problem. This impact could be reduced to low

with strict security protocols

- This site would be visible in the landscape but this can be mitigated through appropriate architecture, colouration, materials (e.g. low stone walls) and limited height.
- The major positive social impacts are skills development and job creation, which would in turn also contribute to the local, regional and national economy.
- Abalone farming also reduced pressure on threatened wild stocks, to which this project would contribute further.

Alternative S1 (2nd preferred alternative) ARISTEA

- The same impacts would be relevant to the Aristeia site as described above, although fewer employment opportunities could be possible.

Alternative S2 (3rd preferred alternative) TOWN

- Similar impacts are expected for this site in terms of construction and operational phases of the project, albeit on a smaller scale due to size difference of the two sites and the fact that the facilities only need to be expanded and not newly built.
- This site would have no impact on vegetation and lower to no visual impact.
- There would be impacts on old buildings, as some components would need to be demolished, but due to its context, impacts are regarded to have low significance and it is recommended that the necessary permits are obtained.
- Should only this site be accepted, socio-economic benefits would still realise, albeit on a smaller scale.
- Smaller contribution to reduce pressure on threatened wild stocks.

Alternative A1 (preferred alternative) FARMING WITH ABALONE

- Abalone would be the most appropriate organism, as has been proved by the pilot project that has been running since 2006.
- Profit margins for abalone would be highest.
- The major positive social impacts are skills development and job creation, which would in turn also contribute to the local, regional and national economy since no significant other economic development has taken place in the past 10 years in an area with limited other development options. The project would consequently contribute to poverty alleviation.
- Abalone farming also reduced pressure on threatened wild stocks, to which this project would contribute further.

Alternative A2

NO FEASIBLE / REASONABLE TECHNOLOGY OR OTHER ALTERNATIVES EXIST TO REACH PROJECT GOALS.

Alternative A3

Not applicable.

No-go alternative (compulsory)

If the project is not commercialised through the proposed development, the above positive impacts would not realise and the current pilot project would need to close. This would lead to job losses and no further economic input in to the local and regional economy.

SECTION E. RECOMMENDATION OF PRACTITIONER

Is the information contained in this report and the documentation attached hereto sufficient to make a decision in respect of the activity applied for (in the view of the environmental assessment practitioner)?

YES✓	NO
------	----

If "NO", indicate the aspects that should be assessed further as part of a Scoping and EIA process before a decision can be made (list the aspects that require further assessment).

--

If "YES", please list any recommended conditions, including mitigation measures that should be considered for inclusion in any authorisation that may be granted by the competent authority in respect of the application.

Implementation of the Environmental Management Programme, which also include specifications as recommended by the Archaeological specialist.
--

Is an EMP attached?

YES✓	NO
------	----

The EMP must be attached as Appendix G.

The details of the EAP who compiled the BAR and the expertise of the EAP to perform the Basic Assessment process must be included as Appendix H.

If any specialist reports were used during the compilation of this BAR, please attach the declaration of interest for each specialist in Appendix I.

Any other information relevant to this application and not previously included must be attached in Appendix J.

Kozette Myburgh for Ecosense

NAME OF EAP



SIGNATURE OF EAP

14 May 2013

DATE

SECTION F: APPENDIXES

The following appendixes must be attached:

Appendix A: Maps

Appendix B: Photographs

Appendix C: Facility illustration(s)

Appendix D: Specialist reports (including terms of reference)

Appendix E: Public Participation

Appendix F: Impact Assessment

Appendix G: Environmental Management Programme (EMPr)

Appendix H: Details of EAP and expertise

Appendix I: Specialist's declaration of interest (included with Specialist report)

Appendix J: Additional Information