

DEPARTMENT OF ENVIRONMENTAL AFFAIRS

NO. 504

06 MAY 2016

**NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998
(ACT NO. 107 OF 1998)****ACTIVITIES IDENTIFIED IN TERMS OF SECTION 24(2)(d) THAT MAY BE EXCLUDED FROM THE
REQUIREMENT TO OBTAIN AN ENVIRONMENTAL AUTHORISATION BUT THAT MUST COMPLY
WITH STANDARDS FOR LAND-BASED ABALONE AQUACULTURE**

I, Bomo Edith Edna Molewa, Minister of Environmental Affairs, hereby give notice of my intention to identify activities that may be excluded from the requirement to obtain an environmental authorisation but which activities must comply with standards for land-based abalone aquaculture, in terms of section 24(2)(d), read with section 24(10)(a), of the National Environmental Management Act, 1998, as set out in the Schedule hereto.

Members of the public are invited to submit to the Minister, within 30 days of publication of this notice in the Gazette, written representations on or objections to the following addresses:

By post to: Department of Environmental Affairs: The Director-General
Attention: Ms Chantal Engelbrecht
Private Bag X447
PRETORIA
0001

By hand at: Reception, Environment House, 473 Steve Biko Road, Arcadia, Pretoria.

By e-mail: cengelbrecht@environment.gov.za.

Any inquiries in connection with the notice can be directed to Ms Chantal Engelbrecht at 012 399 9288.

Comments received after the closing date will not be considered.



BOMO EDITH EDNA MOLEWA
MINISTER OF ENVIRONMENTAL AFFAIRS

SCHEDULE

PURPOSE

1. The purpose of this Notice is to identify activities in terms of section 24(2)(d) of the National Environmental Management Act, 1998, that may be excluded from the requirement to obtain an environmental authorisation, but that must comply with standards for land-based abalone aquaculture.

IDENTIFIED ACTIVITIES

2. The activities listed in Appendix 1 are identified in terms of section 24(2)(d) of the National Environmental Management Act, 1998, as activities that may be excluded from the requirement to obtain an environmental authorisation insofar as these activities—
 - (a) are applicable to the development and related operation or the expansion and related operation of land-based abalone aquaculture facilities, infrastructure or structures where the facility, infrastructure or structures will have a production output exceeding 50 000 kg per annum (wet weight);
 - (b) occur in Eastern Cape, Northern Cape or Western Cape; and
 - (c) are undertaken in compliance with the standards for land-based abalone aquaculture.

APPENDIX 1

1. Environmental Impact Assessment Regulations Listing Notice 1 of 2014:
 - (i) Activity 6(ii);
 - (ii) Activity 8
 - (iii) Activity 15;
 - (iv) Activity 17(iv), read with (d), (e) or (f);
 - (v) Activity 17(v), read with (d), (e) or (f);
 - (vi) Activity 18;
 - (vii) Activity 19(ii),
 - (viii) Activity 19(iii);
 - (ix) Activity 25
 - (x) Activity 26
 - (xi) Activity 27
 - (xii) Activity 28(ii);
 - (xiii) Activity 32;
 - (xiv) Activity 34
 - (xv) Activity 41(ii);
 - (xvi) Activity 43;
 - (xvii) Activity 52;
 - (xviii) Activity 54(iv), read with (d), (e) or (f);
 - (xix) Activity 54(v), read with (d), (e) or (f);
 - (xx) Activity 57; and
 - (xxi) Activity 67
2. Environmental Impact Assessment Regulations Listing Notice 2 of 2014:
 - (i) Activity 6; and
 - (ii) Activity 25.
3. Environmental Impact Assessment Regulations Listing Notice 3 of 2014:
 - (i) Activity 12 in geographical area (a) but limited to Eastern Cape and Western Cape, read with iii or iv;
 - (ii) Activity 12 in geographical area (d), read with iii or iv;
 - (iii) Activity 13 in geographical area (a) but limited to Northern Cape, read with iii;
 - (iv) Activity 13 in geographical area (b), read with iii;

- (v) Activity 15 in geographical area (c), read with i;
- (vi) Activity 15 in geographical area (c), read with ii(aa) or ii(cc);
- (vii) Activity 23 (xii) in geographical area (a) limited to Northern Cape, read with ii(cc), ii(dd), ii(gg) or ii(hh);
- (viii) Activity 23 (xii) in geographical area (a) limited to Northern Cape, read with iii(aa) or iii(bb);
- (ix) Activity 23 (xii) in geographical area (b), read with ii(bb), ii(cc), ii(dd), ii(gg) or ii(hh);
- (x) Activity 23 (xii) in geographical area (b), read with iii;
- (xi) Activity 23 (xii) in geographical area (g), read with ii(bb), ii(dd) or ii(ee);
- (xii) Activity 24 in geographical area (a) but limited to Northern Cape, read with iii;
- (xiii) Activity 24 in geographical area (b), read with iii; and
- (xiv) Activity 26, limited to Eastern Cape, Northern Cape and Western Cape.

SCHEDULE
NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998
(ACT NO. 107 of 1998)

DRAFT NATIONAL STANDARDS FOR LAND-BASED ABALONE AQUACULTURE

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CHAPTER 1

INTERPRETATION, PURPOSE AND APPLICATION

Definitions

1. (1) In these Standards, unless the context indicates otherwise, a word or expression defined in the National Environmental Management Act, 1998 (Act No.107 of 1998) or the Environmental Impact Assessment Regulations, 2014 has the same meaning, and –

“**abalone**” means the gastropod *Haliotis midae*;

“**abalone aquaculture**” means (a) the breeding; (b) rearing; or (c) harvesting of abalone and includes any combination of (a) – (c);

“**abalone aquaculture facility**” means the facility, infrastructure and structures established for the purpose of abalone aquaculture;

“**access road**” means a road developed for the purpose of providing access to the abalone aquaculture facility, excluding the maintenance road;

“**activity**” means a listed or specified activity identified in terms of section 24(2) of the Act, applicable to and indicated in the scope of this standard;

“**ambient seawater**” means the chemical, physical and biological characteristics of seawater in the marine environment that is determined at the seawater intake point of the abalone aquaculture facility prior to any treatment;

“**Biosecurity Standard**” means the Biosecurity Standard for Producers, processors, harvesters, of abalone in South Africa, 2010, prepared by Amanzi Biosecurity for the Abalone Farmers Association of South Africa;

“**coastal buffer zone**” means either the land seaward of the coastal management line or if the coastal management line has not been determined, the land identified as the littoral active zone, in terms of the National Environmental Management: Integrated Coastal Management Act, 2008 (Act No.24 of 2008);

“**coastal marine scientist**” means a specialist in coastal marine science in the field of aquatic science who has the relevant qualifications and can demonstrate expertise.

“coastal waters discharge permit” means a permit issued in terms of section 69 of the National Environmental Management: Integrated Coastal Management Act (ICMA), 2008 (Act 24 of 2009);
“coast type” means rocky coast, sandy coast and mixed coast occurring between the -5 metres bathymetric contour line and 500 metres inland from the high water mark and is categorised and spatially defined by the National Marine Benthic and Coastal Habitat layer, available on the South African National Biodiversity Institute’s BGIS website;

“competent authority” means the organ of state that would have been charged by section 24C of the Act, in respect of a listed activity or specified activity, with evaluating the environmental impact of that activity and, where appropriate, with granting or refusing an environmental authorisation in respect of that activity”

“critically endangered ecosystem” means an ecosystem threat status category listed in terms of the National Environmental Management: Biodiversity Act, 2004 (Act No.10 of 2004), being ecosystems that have undergone severe degradation of ecological structure, function or composition as a result of human intervention and are subject to an extremely high risk of irreversible transformation and refer to an ecosystem threat status category. (Prior to the publication of such a list, refers to critically endangered ecosystems identified in the most recent National Biodiversity Assessment, available on the South African National Biodiversity Institute’s BGIS website);

“current Environmental Impact Assessment Regulations” means the regulations published in terms of section 24(5) of the Act, 2998, by Government Notice R 38282 of 4 December 2014, and includes any amendments thereto or any similar regulations repealing said 2014 Regulations;

“ECA Regulations” means the regulations published in terms of section 26 and 28 of the Environment Conservation Act, 1989, by Government Notice R. 1183 of 5 September 1997;

“ecological support areas” are supporting zones required to prevent the degradation of critical biodiversity areas and protected areas and refer to a critical biodiversity areas map category and are spatially defined as part of a bioregional plan or systematic biodiversity plan, available on the South African National Biodiversity Institute’s BGIS website;

“ecologist” means a specialist in the field of Ecological Science who has the relevant qualifications and can demonstrate expertise;

“**effluent**” means any liquid discharged into the environment, including coastal environments, as waste and includes any substance dissolved or suspended in the liquid or liquid which is a different temperature from the body of water into which it is being discharged;

“**EIA**” means environmental impact assessment;

“**EIA Regulations**” means the Environmental Impact Assessment Regulations, 2014;

“**EMP**” means environmental management programme;

“**endangered ecosystem**” means an ecosystem threat status category listed in terms of the National Environmental Management: Biodiversity Act, 2004 (Act No.10 of 2004), being ecosystems that have undergone degradation of ecological structure, function or composition as a result of human intervention, although they are not critically endangered ecosystems and refer to an ecosystem threat status category. (Prior to the publication of such a list, refers to endangered ecosystems identified in the most recent National Biodiversity Assessment, available on the South African National Biodiversity Institute’s BGIS website);

“**environmental authorisation**” means the authorisation by the competent authority of a listed activity or specified activity in terms of the Section 24(2) of the Act;

“**exposed seashore**” means –

- (a) a reflective beach state as defined spatially on the benthic and coastal habitat layer, available on the South African National Biodiversity Institute’s BGIS website;
- (b) very exposed and exposed rocky coast as defined spatially on the benthic and coastal habitat layer, available on the South African National Biodiversity Institute’s BGIS website; and
- (c) mixed coast that has been identified as exposed by a coastal marine scientist;

“**FEPA**” means freshwater ecosystem priority area identified in terms of the National Freshwater Ecosystem Priority areas project (NFEPA) and represents strategic spatial priorities for conserving freshwater ecosystems and supporting sustainable use of water resources and is categorised in the NFEPA River FEPAs layer available on the South African National Biodiversity Institute’s BGIS website and includes the associated sub-quaternary catchment;

“**inshore habitat type**” means the single coupled benthic and pelagic unit between the -5 metres bathymetric contour line and the -30 metres bathymetric contour line spatially defined on the National

Marine Benthic and Coastal Habitat layer, available on the South African National Biodiversity Institute's BGIS website;

"least threatened ecosystems" means ecosystems not identified as critically endangered, endangered or vulnerable and are spatially defined as part of the most recent National Biodiversity Assessment, available on the South African National Biodiversity Institute's BGIS website;

"maintenance road" means a road, constructed and/or used exclusively for the purpose of servicing and maintenance of aquaculture facility, including the seawater intake and effluent outfall structures, but excluding the access road of the facility;

"mixed coast" means a coast type where rock and sand are both present in the intertidal area and refers to a map category of the National Marine Benthic and Coastal Habitat layer available on the South African National Biodiversity Institute's BGIS website;

"previous NEMA Regulations" means " the previous Environmental Impact Assessment Regulations published in terms of NEMA (Government Notice No. R. 385 in the Government Gazette of 21 April 2006 or Government Notice No. R. 543 in the Government Gazette of 18 June 2010);

"proponent" means the person to whom these standards will apply in relation to an abalone aquaculture facility;

"ridgeline" means a landscape feature elevated above the surrounding topography by more than 8 metres;

"rocky coast" means the coast type where only rock is present in the intertidal area and refers to a map category of the benthic and coastal habitat layer available on the South African National Biodiversity Institute's BGIS website ;

"sandy coast" means the coast type where only sand is present in the intertidal area and refers to a map category of the benthic and coastal habitat layer available on the South African National Biodiversity Institute's BGIS website;

"scenic routes" means routes considered to be of scenic value, including but not limited to routes which have been identified as such in National, Provincial or Local Authority adopted plans and policies;

"terrestrial critical biodiversity areas" means terrestrial features, whose safeguarding is critically required in order to meet biodiversity pattern and process thresholds and refer to a critical biodiversity

areas map category and are spatially defined as part of a bioregional plan or systematic plan, available on the South African National Biodiversity Institute's BGIS website;

“the Act” means the National Environmental Management Act, 1998 (Act No. 107 of 1998);

“the scope of this standard” means the provisions in paragraph 3 of these standards which specify the location, circumstances, infrastructure and activities to which this standard apply;

“these standards” means the national standards for land-based abalone aquaculture;

“threatened fauna” means a mammal, bird, amphibian, fish, invertebrate or reptile species that was identified as critically endangered, endangered or vulnerable in terms of a Red List assessment using IUCN criteria;

“vulnerable ecosystems” means an ecosystem threat status category listed in terms of section 52(2) of the National Environmental Management: Biodiversity Act, 2004 (Act No.10 of 2004), (Prior to the publication of such a list, refers to vulnerable ecosystems identified in the most recent National Biodiversity Assessment, available on the South African National Biodiversity Institute's BGIS website); and

“wet weight” means the biological mass of live abalone and dead abalone before dehydration.

(2) The following words will have the meaning so assigned to them in the Conservation of Agricultural Resources Act, 1983 (Act No. 43 of 1983):

- (a) “invader plant”; and
- (b) “weed”.

(3) The following words will have the meaning so assigned to them in the Hazardous Chemical Substances Regulations (Government Notice R 1179 of 25 August 1995):

- (a) “hazardous chemical substance”.

(4) The following words will have the meaning so assigned to them in the Environmental Impact Assessment Regulations Listing Notice 1 of 2014 :

- (a) “development”;
- (b) “development footprint”;
- (c) “expansion”;
- (d) “indigenous vegetation”;
- (e) “urban areas”;
- (f) “watercourse”; and

- (g) "wetland".
- (5) The following words relevant to coastal actions will have the meaning so assigned to them in the National Environmental Management: Integrated Coastal Management Act, 2008 (Act No.24 of 2008):
- (a) "coastal access land";
 - (b) "coastal management line"
 - (c) "coastal protection zone";
 - (d) "coastal waters", with the exception of estuaries;
 - (e) "coastal public property";
 - (f) "estuaries";
 - (g) "special management area"; and
 - (h) "seashore".
- (6) The following word will have the meaning so assigned to them in terms of the National Environmental Management: Protected Areas Act, 2003 (Act No. 57 of 2003):
- (a) "protected area".
- (7) The following word will have the meaning so assigned to them in the National Environmental Management: Waste Act (Act No. 59 of 2008):
- (a) "hazardous waste".
- (8) The following words will have the meaning so assigned to them in terms of the National Heritage Resources Act, 1999 (Act No. 25 of 1999);
- (a) "heritage site".
- (9) The following words will have the meaning so assigned to them in the World Heritage Convention Act, 1999 (Act No. 49 of 1999) and associated regulations:
- (a) "world heritage site".

Purpose

2. The purpose of this standard is to regulate the--
- (a) development and related operation; and
 - (b) expansion and related operation;

of land-based abalone aquaculture facilities, infrastructure or structures with a production output exceeding 50 000 kg per annum (wet weight) within the Eastern Cape, Northern Cape and Western Cape provinces.

Scope

3. (1) The provisions of this standard are applicable to the development and related operation or the expansion and related operation of land-based abalone aquaculture facilities, infrastructure or structures where the facility, infrastructure or structures will have a production output exceeding 50 000 kg per annum (wet weight) and where the facility, infrastructure or structures meet all of the requirements contained in this paragraph, namely—
- (a) land-based abalone aquaculture facilities, infrastructure or structures with a development footprint of less than 3 hectares, which development footprint includes existing infrastructure that will form an integral part of the facility;
 - (b) land-based abalone aquaculture facilities, infrastructure or structures using flow-through, partial or fully re-circulation systems;
 - (c) land-based abalone aquaculture facilities, infrastructure or structures with a single seawater intake structure which may consist of multiple intake pipes;
 - (d) land-based abalone aquaculture facilities, infrastructure or structures with a single effluent discharge point where such point complies with the relevant legislation;
 - (e) maintenance roads, if any, related to the land-based abalone aquaculture facility, infrastructure or structures, which
 - (i) are situated in the coastal buffer zone;
 - (ii) lead to the pump house, seawater intake pipelines, maintenance point and/or effluent outfall pipeline maintenance point/s; and
 - (iii) are no wider than 3.5 metres;
 - (f) access roads, if any, related to the land-based abalone aquaculture facility, infrastructure or structures where access roads do not exceed four metres in width and one kilometre in length and does not cross a ridgeline or a watercourse and associated flood line;
 - (g) all general operational activities related to the land-based abalone aquaculture facility, infrastructure or structures, but excluding—
 - (i) processing of fish products that involves cutting, separation and drying and ultimately results in waste by products;
 - (ii) clearing of vegetation for the purpose other than fire management or alien plant removal;
 - (iii) use of boreholes where the flow rate and volume required is not consistent with approved water use rights; and

- (iv) bio-digestion of organic waste; and
 - (h) land-based abalone aquaculture facilities, infrastructure or structures, or any portion thereof occurring within–
 - (i) land that has been zoned or designated for the purposes of commercial, industrial or harbour development within the approved municipal Spatial Development Framework;
 - (ii) land that has been legally transformed for agricultural purposes;
 - (iii) coastal waters, land submerged by coastal water and the seashore, falling within coastal public property and is limited to the development of seawater intake and effluent outfall structures;
 - (iv) the littoral active zone that is not coastal public property, any rural land unit that is situated within 1000 metres of the high water mark of the sea that is zoned as agricultural or undetermined, any part of the seashore which is not coastal public property, any land that would be submerged or covered by a 1: 50 year flood or storm event and special management areas, falling within the coastal protection zone;
 - (v) the coastal buffer zone, limited to the development of seawater intake and effluent outfall structures;
 - (vi) a coast type or inshore habitat type that forms part of a vulnerable or least threatened ecosystem;
 - (vii) a five kilometres buffer from the proclaimed boundary of a world heritage site or national park, and a two kilometres buffer from the proclaimed boundary of a protected area, where an area within these buffers has been designated for commercial, industrial or harbour development that does not contain indigenous vegetation; or
 - (viii) a geographical area identified in terms of any environmental management instrument adopted in terms of the Act in which aquaculture is a recommended land use/ where aquaculture is an acceptable land use; or
 - (i) any combination of paragraphs (a) to (h).
- (2) The provisions of this standard are not applicable to land-based abalone aquaculture facilities, infrastructure or structures with a production output exceeding 50 000 kg per

annum (wet weight) where any portion of such facility, infrastructure or structures occurs within—

- (a) fish sanctuaries for critically endangered and endangered fish species;
- (b) river FEPAs;
- (c) terrestrial critical biodiversity areas;
- (d) wetlands and associated buffer zones extending 500 metres from the edge of a wetland;
- (e) subterranean water control areas as specified in the General Authorisations in terms of section 39 of the National Water Act, 1998 (Act No. 36 of 1998);
- (f) estuaries, including a buffer of 500 metres from the edge of the estuary;
- (g) world heritage sites;
- (h) heritage sites;
- (i) protected areas; and
- (j) coastal access land.

CHAPTER 2

ADMINISTRATIVE REQUIREMENTS

Notification and registration

4. (1) No person may commence with the development and related operation or the expansion and related operation of an abalone aquaculture facility, infrastructure or structures falling within the scope of this standard as contemplated in paragraph 3, unless the proponent has submitted to the competent authority—
- (a) a request to be registered and notification of intent to comply, as set out in Appendix 2;
 - (b) a report generated by the national web- based environmental screening tool, once the tool is operational;
 - (c) proof that notice of the development or expansion of facilities or infrastructure for the development and related operation or the expansion and related operation of an abalone aquaculture facility was issued to—
 - (i) the landowner or person in control of the land if proponent is not the landowner; and
 - (ii) all neighbouring land owners or persons in control of the land;

- (d) an EMP that includes the minimum requirements as set out in Appendix 3, to the competent authority together with the notification; and
 - (e) any other information or reports/documentation that is prescribed in this standard.
- (2) The proponent must indicate the boundaries of the proposed development footprint, which is limited to 3 hectares as contemplated in paragraph 3(1)(a), including future expansion, in the notification.
- (3) No person may commence with the development and related operation or the expansion and related operation of an abalone aquaculture facility falling within the scope of this standard, where such development or expansion is inconsistent with the development footprint indicated in any notification submitted in terms of these standards, unless the proponent complies afresh with sub-paragraph (1) for such development or expansion.
- (4) The proponent may commence with the development and related operation or expansion and related operation of an abalone aquaculture facility, infrastructure or structures after 30 days, but within 2 years, from the date of compliance with sub-paragraph (1) or (3), as the case may be, unless the competent authority indicates to the proponent that—
- (a) the proposed development or expansion falls outside of the scope of these standards; or
 - (b) insufficient information has been provided and additional information is requested to confirm that the proposal falls within the scope of this standard.

CHAPTER 3

ENVIRONMENTAL MANAGEMENT SPECIFICATIONS

5. The proponent must ensure compliance with the following specifications.

(1) Specifications in relation to the EMP

The proponent must submit an EMP for the abalone aquaculture facility to the competent authority, which must –

- (a) comply with the content requirements as set out in Appendix 3;
- (b) be made available—
 - (i) on site before development commences;
 - (ii) for inspection on site; and
 - (iii) on a website accessible to the public, where the proponent has such a website;

- (c) provide findings, confirmed by a person with the appropriate experience, demonstrable expertise and qualifications in an environmental management field for the duration of the development or expansion of the proposed facility to monitor compliance with this standard, that the measures contained in such EMP sufficiently provides for the avoidance, management and mitigation of environmental impacts associated with the undertaking of the activity; and
- (d) be included in all contractual documentation relevant to the development, expansion and operational phase of the proposed abalone aquaculture facility.

(2) Specifications during development and expansion of an abalone aquaculture facility

- (a) An aquaculture facility situated outside an urban area that is visible from, and situated closer than 500 metres from a public road or neighbouring dwelling, must be screened by natural means (vegetation, land berms etc.), or reshaping the natural topography to at least 50% of the height of the facility.
- (b) Outside urban areas, the aquaculture facility, excluding access roads, may not be placed within 100 metres from the property boundary, unless a written consent from the relevant abutting landowners is provided with the notification as set out in Appendix 2.
- (c) Outside industrial complexes, all components of the abalone aquaculture facility, except the header storage tank and protein skimmers, must not extend more than 8 metres above the ground.
- (d) The seawater intake structures that are situated within the coastal buffer zone must be limited to —
 - (i) a sump not exceeding 50 square metres in extent;
 - (ii) screening structures at the opening of the intake pipelines for safety purposes and to prevent large marine organisms from entering the sump and
 - (iii) infrastructure required for cleaning and maintenance activities.
- (e) The pump station must not exceed 60 square metres in extent, which includes control boxes, water pumps, light poles and a wall on the seaward side if the pump station is situated next to the sump. Additional equipment such as generators and electrical substations may either be housed in the pump house or in buildings outside of the coastal buffer zone, but within the development footprint of the facility.

- (f) The effluent outfall structures i.e. pipelines or channels must have a maximum outside dimension of 1200 millimetres.
- (g) Seawater intake and effluent outfall structures must –
 - (i) be secured on bedrock, or buried in sand;
 - (ii) not be secured on elevated support structures, including but not limited to pylons;
 - (iii) in the case of channels, be covered or screened for safety purposes such that human access is prevented;
 - (iv) be visually screened, where positioned on bedrock, by covering the structures with cement shaped to blend in with the environment; and
 - (v) not be located in seashore areas situated in front of abutting land parcels unless written consent of the relevant landowners is provided with the notification as set out in Appendix 2.
- (h) The effluent outfall point must be located –
 - (i) in the proximity of the mean sea level on a rocky coast; and
 - (ii) beyond the surf zone on mixed coast and sandy coast,
or as specified in a discharge permit.
- (i) Rearing, grow out tanks and seawater storage facilities must be constructed in a manner which would prevent the flow of any spillage onto a neighbour's property.
- (j) Settlement and storage dams must be lined with waterproof sheeting.
- (k) Public access along the coast via existing access points must not be restricted by any components of the abalone aquaculture facility without ensuring reasonable alternative access.

(3) Specifications relating to fauna

- (a) Disturbance or mortality of indigenous fauna in littoral active zone must be minimised through avoiding roosting and nesting sites, migration pathways and/or feeding grounds of threatened fauna in the coastal buffer zone by all components of the abalone aquaculture facility.
- (b) In areas, untransformed by the proposed development, electrical current may not be conducted within 20 centimetres off the ground.
- (c) No lethal forms of predator control may be used, except for the control of rats, mice and insects.

- (d) Disturbance and mortality of fauna and marine organisms must be minimised by ensuring that the speed of water flow through the screens placed on the intake pipelines, does not exceed 0.15 metres per second.

(4) Specifications relating to water

- (a) Where a facility removes organic and natural particulates such as plant material, sand and silt from its influent, the facility may discharge these particulates with its effluent.
- (b) Only chemicals used in the operation of the facility may be discharged in the effluent, provided such chemicals are diluted or neutralised.
- (c) Any effluent discharged by the facility must not exceed the effluent limit values as set out in Appendix 1, or as specified in a discharge permit.
- (d) Water containing pollutants such as cement, concrete, lime, fuels, and detergents must be contained and discharged into an impermeable storage facility for removal from the site to a licensed waste disposal facility or for recycling.
- (e) No visible blockage of stormwater management structures on the development footprint may occur.
- (f) Any blockage of stormwater management structures must be cleared immediately.
- (g) Effluent must be controlled by –
 - (i) containing all effluent in pipelines or channels to the effluent outfall point;
 - (ii) ensuring that the median concentrations or levels of listed constituents and/or parameters in the effluent water in any one of the effluent streams do not exceed the effluent limit values, as set out in Appendix 1, or as specified in a coastal waters discharge permit and by–
 - (aa) calculating and recording the median concentrations and/or levels for listed constituents and/or parameters in the ambient/ inflow into the tank seawater and effluent for the time intervals prescribed in Appendix 1; or as specified in a coastal waters discharge permit; and
 - (bb) complying with the sampling frequency requirements for each parameter as set out in Appendix 1 or as specified in a coastal waters discharge permit;

- (iii) notifying the competent authority and the department responsible for water and sanitation, of non-compliance if the annual median effluent values from the recent 12 monthly constituents in Appendix 1 are not met. Sampling frequency should increase to every two weeks until 3 consecutive measurements fall within the limit values for each constituent.
- (iv) if necessary, implementing measures and corrective actions that may be set by the competent authority or the department responsible for water and sanitation to address the implications of exceeding the values contemplated in sub- paragraph (iii).

(5) Specifications relating to sewage

- (a) The sewage system must be connected to a municipal sewer network or where municipal sewer networks are unavailable, a closed system, dry composting toilets or conservancy tanks must be used.
- (b) Conservancy tanks must be located more than 100 metres from a borehole, well point or watercourse.
- (c) All sewage facilities used during development phases must be installed according to the manufacturer's specifications.
- (d) The spillage of the contents of sewage facilities must be remediated immediately and contaminated material must be removed and disposed of at a licensed waste disposal facility.

(6) Specification relating to fuel

- (a) Fuel storage areas must be bunded to 110% of the volume of fuel being stored and the bund must be sealed.
- (b) Fuel or oil leakage or spillage caused by oil or fuel transportation or by machinery or equipment must immediately be remediated and contaminated soil removed and disposed of at licensed waste disposal facility.
- (c) The quantity of stored fuel shall not exceed 30 m³ at any time.

(7) Specifications relating to fire and explosives

- (a) Firebreaks located immediately adjacent to the abalone aquaculture facility must be maintained regularly without permanently removing the vegetation.

- (b) Blasting is allowed during the development phase of the facility and must be done in accordance with input from an ecological specialist.

(8) Specifications relating to hazardous chemical substances

- (a) Only hazardous substances used in the operation of the facility may be stored on site.
- (b) The relevant Material Safety Data Sheets must be available on site.
- (c) The storage, use and disposal of hazardous substances must be in accordance with the relevant Material Safety Data Sheets.
- (d) The spillage of hazardous substances must be remediated immediately and contaminated material must be removed and disposed of at a licensed waste disposal facility unless the method of disposal is specified in accordance with the relevant Material Safety Data Sheets.
- (e) All concrete storage and mixing must take place inside the development footprint of the facility and outside coastal buffer zone.

(9) Specifications relating to waste

- (a) The waste storage area must be demarcated and fenced.
- (b) No burning of waste may occur.
- (c) All waste, must be disposed of at a licensed waste disposal facility or with another registered service provider, other than the reuse of sand, wet and dry sludge and biosolids.
- (d) Only waste generated by the abalone aquaculture facility may be stored on site.

(10) Specifications relating to biosecurity plan

- (a) The proponent must ensure that a biosecurity plan is compiled and implemented.
- (b) A biosecurity plan for disease control during the operational phase must be approved, in writing, by a qualified veterinarian, in accordance with the Biosecurity Standard.
- (c) Annual audits must be conducted by a qualified veterinarian to ensure that biosecurity measures are implemented in accordance with the biosecurity plan.

- (d) General health of abalone and risk of disease spread must be controlled through the implementation of sound husbandry practices and the prescribed measures contained in the Biosecurity Plan.

(11) Specifications relating to biodiversity

The risk of abalone escape and associated environmental impacts must be minimised by -

- (a) maintaining functional screens with appropriate mesh size at appropriate positions throughout the facility;
- (b) ensuring that wild brood stock are sourced from the local genetic zone;
- (c) ensuring that F1 brood stock originates from wild brood stock, which are sourced from the local genetic zone;
- (d) preventing the movement of animals for the purpose of stocking between the following-
 - (i) Zone 1: East of Cape Agulhas
 - (ii) Zone 2: West of Cape Agulhas, and
- (e) euthanising un-used larvae.

(12) Specifications relating to specialist input

- (a) The proponent must appoint—
 - (i) a coastal marine scientist, who must confirm, in writing, prior to the submission of the notification to the competent authority, that the seashore at the outfall point will be classified as exposed and that there will be efficient mixing and optimal dispersion of the effluent, if the effluent outfall point is located on mixed coast;
 - (ii) a coastal marine scientist to provide written confirmation, prior to the submission of the notification to the competent authority, that inlet and outfall structures that fall inside the coastal buffer zone has avoided roosting and nesting sites, migration pathways and/or feeding grounds of threatened fauna; and
- (b) a person with the appropriate experience, demonstrable expertise and qualifications in an environmental management field for the duration of the development or expansion of the proposed facility to monitor compliance with this standard, and as a minimum –

- (i) be appointed prior to the commencement of development or expansion of the development footprint;
- (ii) inspect the development footprint every 2 weeks, or at a frequency determined by the person referred to in paragraph (b);
- (iii) be present for all clearing activities in sensitive areas such as indigenous veld, littoral active zone or watercourse and associated flood zone and if required by the EMP; and
- (iv) compile a site visit report at a frequency determined by the person referred to in paragraph (b), which must be available on site.

CHAPTER 4

COMPLIANCE

Operational phase compliance measures

6. The proponent must ensure that—
- (1) a water quality testing laboratory, accredited by the South African National Accreditation System, verifies measurements of all effluent constituents as set out in Appendix 1, two times per annum—
 - (i) in ambient seawater where applicable; and
 - (ii) in effluent, during working and non-working hours; and
 - (2) an audit of the biosecurity plan as contemplated in sub-paragraph 5(10) is conducted annually.

Reporting

7. (1) The proponent must appoint a person with the appropriate experience, demonstrable expertise and qualifications in an environmental management field to compile a compliance monitoring statement as set out in Appendix 4 and must provide the relevant competent authority with this compliance reporting statement—
- (a) following completion of development or expansion and seven days prior to the commencement of the operational phase; and
 - (b) annually, following the submission of the first compliance reporting statement.
- (2) The proponent must report --

- (a) indigenous fauna mortalities to the relevant conservation authority within 7 days from the date the animal was found and the report must, as a minimum contain the information required in these standards;
- (b) the spillage of fuel, oil and chemical hazardous substances greater than 10 litres into a watercourse and associated flood zone to the department responsible for water and sanitation within 24 hours of the accident;
- (c) any notifiable abalone disease outbreak to the provincial state veterinarian within seven days of the detection of the outbreak;
- (d) any disease outbreak causing substantial loss of stock within 7 days to the department responsible for fisheries and aquaculture; and
- (e) non-compliance where annual median concentrations of effluent limit values as set out in Appendix 1 are not met, to the competent authority and the department responsible for water and sanitation within fourteen days of non-compliance and must provide evidence that such non-compliance has been rectified through the following process:
 - (i) providing the competent authority and the department responsible for water and sanitation with an action plan to rectify the non-compliance,
 - (ii) obtaining agreement from the competent authority and the department responsible for water and sanitation regarding the content of the plan and the implementation timeline,
 - (iii) implementing the agreed corrective actions within the agreed timeline.

Record Keeping

8. (1) The proponent must maintain a signed register—
- (a) of any persons with the appropriate experience, demonstrable expertise and qualifications in an environmental management field, who conducts site visits during the development phase as stipulated below, and must contain –
 - (i) the date and time of the site visit; and
 - (ii) the site visit report, undertaken at the frequency contemplated in paragraph 5(12)(b)(ii), for inspection, which must as a minimum contain –
 - (aa) all contraventions to the EMP; and
 - (bb) details of the person or persons who contravened the EMP; and

- (b) during the development, expansion and operation phases, of all persons entering the site for the purposes of compliance monitoring and reporting.
- (2) The proponent must keep and maintain records of -
- (a) all chemicals discharged in the effluent, including its quantities;
 - (b) each hazardous chemical substance used during the development and operation phase at the aquaculture facility and the records must be accompanied by Material Safety Data Sheets;
 - (c) purchase, use and disposal of hazardous chemical substances in accordance with the manufacturer or the Occupational Health and Safety regulations and must detail—
 - (i) name of the chemical substance;
 - (ii) intended use;
 - (iii) quantity to be disposed, measured in litres; and
 - (iv) details of persons assigned to this task; and
 - (d) oil, fuel or hazardous chemical substances spillages and must detail—
 - (i) the date and time the spill was detected;
 - (ii) substance that was spilled;
 - (iii) reason for spillage;
 - (iv) date and time the spill was attended to;
 - (v) date when the spillage was reported, if required as well as proof of this;
 - (vi) how the spillage was remediated; and
 - (vii) if applicable, the details of the persons that were harmed.
- (3) The proponent must keep and maintain, relating to fire, of any unplanned fire events occurring as a result of the abalone aquaculture facility and must detail—
- (a) date and time of fire detection;
 - (b) details of the person who reported the fire;
 - (c) location of the fire;
 - (d) description of the chain of events that led to the fire; and
 - (e) description of measures taken to extinguish the fire.
- (4) The proponent must keep and maintain records relating to sewage, of the service record of the company that provides the portable chemical toilets that records

- (a) the number of portable chemical toilets used on the development footprint;
 - (b) the date of service; and
 - (c) name, contact details and signature of the service provider.
- (5) The proponent must maintain records of spillages from portable chemical toilets and must detail –
- (a) the date and time the spill was detected;
 - (b) the reason for the spillage;
 - (c) date and time the spill was attended to;
 - (d) how the spillage was remediated; and
 - (e) if applicable, the details of the persons that were harmed.
- (6) The proponent must keep and maintain records of indigenous fauna killed and must detail -
- (a) date and time the animal was found;
 - (b) type of animal;
 - (c) cause of death; and
 - (d) date that this was reported to the relevant conservation authority.
- (7) The proponent must keep and maintain records relating to effluent of --
- (a) effluent monitoring conducted by a specialist, who has relevant qualification and experience in water quality monitoring and can demonstrate expertise, and the records must –
 - (i) contain concentration of each effluent constituent as set out in Appendix, or as specified in a coastal waters discharge permit, 1 measured in in the effluent stream, during working and non-working hours;
 - (ii) contain concentration of each effluent constituent as set out in Appendix 1 or as specified in a coastal waters discharge permit, measured in ambient seawater /inflow into the tank,, during working and non-working hours;
 - (iii) state the calculated difference between the ambient seawater and the effluent for each effluent constituent as set out in Appendix 1, or as specified in a coastal waters discharge permit, where applicable;
 - (iv) flow rate measurement of each effluent channel and standing stock;
 - (v) sampling positions on the farm;

- (vi) correspond with the sampling frequencies as set out in Appendix 1, or as specified in a coastal waters discharge permit;
 - (vii) state the annual median of each effluent constituent;
 - (viii) include date and time of sampling;
 - (ix) include details and signature of the person responsible; and
- (b) include details of the water quality testing laboratory responsible for the verification of the analyses of the water samples and methodology used, where applicable ;
- (8) The proponent must keep and maintain all record relevant to the implementation of the biosecurity plan for a minimum period of 5 years from the date that the record was created and records must as a minimum include—
- (a) written and signed statements of biannual clinical surveillance checks by a qualified veterinarian;
 - (b) contact details and signature of a qualified veterinarian; and
 - (c) if applicable, any documentation produced during a disease outbreak and a detailed description of the event.
- (9) The proponent must keep and maintain records of abalone mortalities which must detail and contain—
- (a) the date of removal from tank;
 - (b) if known, the cause of death; and
 - (c) the quantity of abalone, counted in numbers and wet weight in kilograms.
- (10) The proponent must keep and maintain records of each euthanasiation event and must detail--
- (a) the date of the event; and
 - (b) personal details of the responsible person.
- (11) The proponent must keep and maintain records of abalone spat and stock deliveries to and from the abalone aquaculture facility and must detail--
- (a) the date and time of delivery;
 - (b) where the stock will be delivered to or where it has come from;
 - (c) quantity of abalone, counted in numbers and wet weight in kilograms;

- (d) abalone mortalities during the delivery in numbers and percentage of the batch;
and
 - (e) name and contact details of the courier.
- (12) The proponent must keep and maintain records of monthly inspections of safety screens, fences and enclosures and must detail --
- (a) the date of inspection;
 - (b) personal and contact details of the persons who performed the inspection; and
 - (c) a description of maintenance measures taken.
- (13) The proponent must keep and maintain records of biological waste disposed of at a licensed waste disposal facility and which must detail --
- (a) date of disposal;
 - (b) a description of actions taken; and
 - (c) volume and weight of waste disposed.
- (14) The proponent must keep and maintain records of all hazardous waste disposed of at a licensed waste disposal facility and which must detail --
- (a) the date of disposal;
 - (b) type of waste; and
 - (c) a description of actions taken.
- (15) If the sewerage system comprises of dry composting toilets or a conservancy tank, the proponent must keep and maintain a cleaning and maintenance record which must detail the--
- (a) age of the sewerage components;
 - (b) name and contact details of the service provider;
 - (c) date and time of detected malfunction;
 - (d) date and time of service; and
 - (e) date and time of cleaning.
- (16) All specialist reports must be available on site for inspection by the competent authority or any other relevant authority.

Authority inspections

9. The proponent must—
- (a) provide the competent authority with access to the facility, for the purposes of compliance monitoring of the abalone aquaculture facility, without prior notification; and
 - (b) ensure that any records as stipulated in this standard must be available to the competent authority upon request within 2 working days.

Offences and penalties

10. (1) A person is guilty of an offence if that person contravenes or fails to comply with paragraph 4, 5(1), 5(2)(b), 5(2)(g)(v), 5(4)(g), 5(10)(a), 5(12), 6, 7 or 8(16) of this standard and is liable for the penalty contemplated in section 49B(1) of the Act.
- (2) Compliance with these standards shall not negate the need for the proponent to comply with all other applicable legislation.

CHAPTER 5**Transitional Arrangements**

11. (1) Existing environmental authorisations will remain in place for abalone aquaculture facilities and in the instance where there is conflict between the requirements of environmental authorisation and the standards, the requirements in the environmental authorisation will prevail.
- (2) Where an existing abalone aquaculture facility has been authorised by means of an environmental authorisation issued in terms of the ECA Regulations, the previous NEMA regulations, or the current Environmental Impact Assessment Regulations, and where such existing abalone aquaculture facility is expanded and the facility, inclusive of the expansion, will fall within the scope of this standard as contemplated in paragraph 3 of this standard, this standard will apply to the facility only to the extent that the standard is not in conflict with any existing environmental authorisation.

APPENDIX 1

EFFLUENT MONITORING REQUIREMENTS

1. Table 1 Effluent monitoring requirements – Abalone

The specifications in this Appendix will apply in the absence of a coastal waters discharge permit, or where a coastal waters discharge permit does not include those specifications addressed in this Appendix.

| Effluent constituent | Effluent limit value | Sampling frequency of annual median concentration measured during working and non-working hours: |
|------------------------------|----------------------|--|
| Total Suspended Solids (TDS) | 5 mg/l | Monthly |
| Total Ammonia Nitrogen (TAN) | 0.6 mg/l | Monthly |

2. Sampling positions

- 2.1. Samples should be taken from the following-
 - a. effluent streams;
 - b. inflow into the grow-out tanks (if there is no filtration system on the farm); or
 - c. intake to the farm.
- 2.2. Sampling should focus on effluents from grow-out units; hatcheries may be excluded where possible.
- 2.3. Ambient conditions are represented by intake to the farm prior to any treatment and are used as an indicator of background ambient concentrations.
- 2.4. Farms with no filtration or other treatment of intake water may utilise samples from header tanks for ambient concentrations.

3. Sampling times

Effluent samples should be collected during both working hours and non-working hours, preferably before work starts in the morning. This is to account for diel variation in concentrations as a result of variable outputs due to operational activities. Influent need only be sampled once daily to represent ambient conditions.

4. Calculation of values

- 4.1. Effluent and influent concentrations levels during working hours are applied to an 8 hour working day. After hours concentrations are assumed to apply to the remaining 16 hours.
- 4.2. The annual median should be weighted for working and non-working hours over the course of a year.

4.3. In the calculation of activity-based concentrations, measured concentrations are initially weighted for an 8/16 hour working/non-working periods to provide an average daily value for a working day. A non-working day corresponds to 24 hour of the measured after hours signal. These are then weighted annually using 250 as the typical number of working days and 115 as non-working days in a year. Final values should reflect the difference between the intake and effluent concentrations.

4.4. The formula for calculation of activity-based concentrations over the course of a year (C_{ann}) is:

$$C_{ann} = ((C_w * 8/24) + (C_{nw} * 16/24)) * 250/365 + (C_{nw} * 115/365) \quad (\text{Eq. 1})$$

where,

C_w = the measured concentration of a particular parameter during working hours; and

C_{nw} = the concentration during non-working hours in a year.

5. Flow rates and Standing stock

5.1. Effluent flow rates should be measured in the effluent channel during the sampling period or can be estimated from pump capacity.

5.2. Data from multiple effluent streams should be presented individually as well as a combined single outflow concentration weighted by flow rate for each channel.

5.3. Individual channel concentrations are weighted according to volume flow on the day of sampling (in addition to the activity-based weighting presented above).

5.4. Calculation of a combined effluent concentration ($C_{combined}$) is as follows:

$$C_{combined} = C_1 * (F_1 / (F_1 + F_n)) + C_n * (F_n / (F_1 + F_n)) \quad (\text{Eq. 2})$$

where

C = the effluent concentration, and

F = the flow rate, for effluent channels 1 ton.

These values, combined with total effluent discharge rates, can be used to provide annual loadings for each water quality parameter (e.g. metric tonnes/year).

5.5. Standing stock data on the day of sampling should be recorded as whole wet weight for calculation of biomass-specific discharge rates.

6. Sampling frequency

6.1. Monthly samples should be taken of both total suspended solids and total ammonia nitrogen.

6.2. A running median is to be calculated from the most recent 12 monthly values and updated as new data become available. If the calculated annual median exceeds the effluent limit

for any outflow, steps should be taken to identify the cause and instigate appropriate remedial actions.

- 6.3. Sampling frequency should increase to every two weeks until 3 consecutive values fall within the limit value.

APPENDIX 2
REQUEST FOR REGISTRATION AND NOTIFICATION OF INTENT TO COMPLY WITH THE
STANDARDS FOR LAND-BASED ABALONE AQUACULTURE

For official use:

| | |
|-------------------------|--|
| Reference Number | |
| Date received | |

General

- Please note that the information contained in this notification form must be accurate as it can be used for the purposes of compliance monitoring.

Definitions

- For the purpose of this document a word or expression defined in these standards has the same meaning.

Part A: Request for Registration

| REGISTRATION (tick where applicable) | |
|--------------------------------------|--|
| New development | |
| Expansion of existing development | |

- Please indicate in the table below –
 - the purpose of this notification by ticking the appropriate option (development/expansion);
 - the applicable maps and site plan features; and
 - applicable documents for attachment.

Part B: Checklist

| Nature of project | Development | | Expansion | |
|--|---|--|-----------------------|--|
| 1. Environmental mapping requirements | | | Yes (✓) No (X) | |
| 1.1. | A 1:50 000 map showing the location of the development footprint. | | | |
| 1.2. | A location map (to scale) showing the following features likely to be influenced by the development in relation to the development footprint (regional context): | | | |
| | a) location and boundary of the development footprint | | | |
| | b) property boundaries | | | |
| | c) location and extent of scenic routes, tourist routes, world heritage sites, heritage sites, national parks, protected areas in terms of NEMPAA, the National Environmental Management: Protected Areas Act, 2003 (Act No. 57 of 2003) and its biosphere reserves and associated buffer zones | | | |

| | | |
|------------------------------------|---|-----------------------|
| | d) extent and location of estuaries | |
| | e) extent and location of watercourses and associated flood zones | |
| | f) extent of wetlands and associated 500 metres buffer zone from the edge of the wetland | |
| 1.3. | A site map showing the boundaries of the proposed abalone aquaculture facility and including future expansion to the proposed development, but not exceeding 3 hectares | |
| 1.4. | The site plan drawn to scale showing the following features likely to be influenced by the development | |
| | a) any existing development footprint in hectares of land that is currently physically transformed (i.e. topsoil lawfully disturbed in preceding 10 years. | |
| | b) proposed total development footprint in hectares of land that will be physically transformed | |
| | c) existing access road | |
| | d) proposed access road | |
| | e) existing infrastructure associated with and to be used in the abalone aquaculture facility | |
| | f) proposed infrastructure associated with the abalone aquaculture facility | |
| | g) 100 metres buffer from the property boundary | |
| | h) location and extent of existing firebreak immediately adjacent to the abalone aquaculture facility | |
| | i) location and extent of proposed firebreak immediately adjacent to the abalone aquaculture facility | |
| | j) extent of indigenous vegetation that will be transformed by the proposed abalone aquaculture facility indicating the relevant ecosystem threat statuses | |
| | k) roosting and nesting sites, migration pathways and/or feeding grounds of threatened fauna on the in close proximity to the proposed abalone aquaculture facility. | |
| | l) extent and location of the coastal buffer zone | |
| | m) extent and location of dune habitat | |
| | n) extent and location of estuaries | |
| | o) extent and location of watercourses and associated flood zones | |
| | p) any other sensitive feature identified by the proponent such as geological feature, rocky outcrop, etc. | |
| 2. Documents for attachment | | Yes (✓) No (X) |
| 2.1. | A Screening Report generated by the national web- based environmental screening tool, once the tool is operational | |
| 2.2. | Name and addresses of all abutting property owners | |
| 2.3. | A written agreement with the abutting land owner indicating that a 100 metres buffer from the property boundary is not required | |
| 2.4. | A written agreement with the relevant land owners that permits seawater intake and effluent outfall structures to be located in front of the relevant land owner's properties | |
| 2.5. | A statement by a coastal marine scientist verifying that the coastline at the outfall point qualifies as exposed shoreline and that there will be efficient mixing and optimal dispersion of the effluent. | |
| 2.6. | A written statement by an coastal marine scientist verifying that all components of the abalone aquaculture facility in the coastal buffer zone will avoid roosting and nesting sites, migration pathways and/or feeding grounds of threatened fauna; | |

| | | |
|------|---|--|
| 2.7. | The declaration by the proponent and a confirmation that requirements of this standard will be complied with (see attached declaration). | |
| 2.8. | A declaration by the proponent that onsite commencement with any activities in furtherance of the facility or any other listed activities has not commenced | |
| 2.9. | Short Curricula Vitae with qualifications and lists of relevant projects to demonstrate applicable expertise (Yes/No) of specialists and persons appointed in an Environmental Management capacity. | |

Part C: General Information

| Section A | | PROPONENT DETAILS | |
|--------------------------|------------------------|-------------------|--------|
| Company or Trading Name: | | | |
| Contact: | | | Title: |
| | | | |
| Passport | Identity Document (ID) | No.: | |
| Physical Address: | | | |
| Postal address: | | | |
| Email Address: | | | |
| Phone No.: | | Fax No.: | |

| Section B | | PROPERTY DETAILS | |
|-------------------------------|--|------------------|--|
| Erf / Farm number: | | | |
| Plot Size in m ² : | | | |
| Address: | | | |
| | | | |
| SG21 Code: | | | |
| GPS Coordinates: | | | |
| Latitude (S): | | | |
| Longitude (E): | | | |

| Section C | | PROPERTY OWNER DETAILS | |
|-------------------|------------------------|------------------------|--------|
| Company Name: | | | |
| Contact: | | | Title: |
| | | | |
| Passport | Identity Document (ID) | No.: | |
| Physical Address: | | | |

| | |
|------------------------|-----------------|
| Postal Address: | |
| Email Address: | |
| Phone No.: | Fax No.: |

Part D: Details of the proposed project**A. BRIEF DESCRIPTION OF EXISTING DEVELOPMENT (IF APPLICABLE) THAT WILL FORM PART OF THE PROPOSED ABALONE AQUACULTURE FACILITY**

| |
|--|
| |
|--|

B. BRIEF PROJECT DESCRIPTION:

| |
|--|
| |
|--|

C. DEVELOPMENT FOOTPRINT, INFRASTRUCTURE AND ACTIONS

| | | |
|-----|---|--|
| (1) | What is the land use zone within which the proposed abalone aquaculture facility will be situated? | |
| (2) | What is the development footprint of the proposed project? | |
| (3) | What is the development footprint of existing development (if applicable) | |
| (4) | What are the ecosystem types present on the site and provide their associated threat status and what area (m ²) of each of the above ecosystem types will be cleared by the proposed works (regardless of the level of alien plant invasion). | |
| (5) | What is the proposed length and width of the access road associated with the proposed project? | |

Part E: Listed activities, as applicable only in the Eastern Cape, Northern Cape and Western Cape provinces)

| Environmental Impact Assessment Regulations Listing Notice 1 (GN 983) | |
|--|---|
| Activities | Please indicate: Yes (✓) or No (X) |
| Activity 6(ii) | |
| Activity 8 | |
| Activity 15 | |
| Activity 17(iv) read with (d), (e) or (f) | |
| Activity 17(v) read with (d), (e) or (f) | |
| Activity 18 | |
| Activity 19(ii) | |
| Activity 19(iii) | |
| Activity 25 | |
| Activity 26 | |
| Activity 27 | |
| Activity 28(ii) | |
| Activity 32 | |
| Activity 34 | |
| Activity 41(ii) | |
| Activity 43 | |
| Activity 52 | |
| Activity 54(iv) read with (d), (e) or (f) | |
| Activity 54(v) read with (d), (e) or (f) | |
| Activity 57 | |
| Activity 67 | |
| Environmental Impact Assessment Regulations Listing Notice 2 (GN 984) | |
| Activities | Please indicate: Yes (✓) or No (X) |
| Activity 6 | |
| Activity 25 | |
| Environmental Impact Assessment Regulations Listing Notice 3 (GN 985) | |
| Activities | Please indicate: |

| | Yes (✓) or No (X) |
|--|---|
| Activity 12 in geographical area (a) but limited to Eastern Cape and Western Cape, read with iii or iv | |
| Activity 12 in geographical area (d), read with iii or iv | |
| Activity 13 in geographical area (a) but limited to Northern Cape, read with iii | |
| Activity 13 in geographical area (b), read with iii | |
| Activity 15 in geographical area (c), read with i | |
| Activity 15 in geographical area (c), read with ii(aa) or ii(cc) | |
| Activity 23 (xii) in geographical area (a) limited to Northern Cape, read with ii(cc), ii(dd), ii(gg) or ii(hh) | |
| Activity 23 (xii) in geographical area (a) limited to Northern Cape, read with iii(aa) or iii(bb) | |
| Activity 23 (xii) in geographical area (b), read with ii(bb), ii(cc), ii(dd), ii(gg) or ii(hh) | |
| Activity 23 (xii) in geographical area (b), read with iii | |
| Activity 23 (xii) in geographical area (g), read with ii(bb), ii(dd) or ii(ee) | |
| Activity 24 in geographical area (a) but limited to Northern Cape, read with iii | |
| Activity 24 in geographical area (b), read with iii | |
| Activity 26, limited to Eastern Cape, Northern Cape and Western Cape provinces | |
| Summary | Please indicate: Yes (✓) or No (X) |
| Are there activities (contained in the EIA Listing Notices) that are associated with the proposed project, but that are not included in the list above (if Yes, please list below) | |
| | |
| | |
| | |
| | |
| | |

Part F: Contact list

| Environmental | Details of the person who developed the plan |
|---------------|--|
|---------------|--|

| management plans (provision 7 and EMP) | Name and contact details | Confirm that a short Curricula Vitae is attached with qualifications and lists of relevant projects to demonstrate applicable expertise (Yes/No) | Signature confirming that the plan has been compiled and is available for inspection on site |
|---|---|--|--|
| 1. EMP | | | |
| 2. Biosecurity plan | | | |
| Specific environmental requirements | Details of the person who determined the environmental requirements | | |
| | Name and contact details | Confirm that a short Curricula Vitae is attached with qualifications and lists of relevant projects to demonstrate applicable expertise (Yes/No) | Signature |
| Avoiding of roosting and nesting sites, migration pathways and/or feeding grounds of threatened fauna | | | |
| Exposure level of mixed coast type and confirmation of efficient mixing and optimal dispersion of the effluent. | | | |

Part G: DECLARATION

I am filing my notification of intent to comply (hereafter referred to as “notification”) with the standards for land-based abalone aquaculture (hereafter referred to as “these standards”) gazetted under section 24 (10) of the National Environmental Management Act, 1998 (NEMA). I fully understand that I can be subject to enforcement action, including a stop work order, on my failure to comply with this standard.

I also understand that I may not commence within 30 days, and must commence within 2 years, of submitting this notification and the documents and information contemplated in paragraph 4(1) of the standard to the competent authority.

I am also aware of my responsibility to exercise an environmental duty of care in terms of section 28 of NEMA to take reasonable measures to prevent environmental pollution or degradation from occurring, continuing or recurring, or, in so far as such harm to the environment is authorised by law or cannot reasonably be avoided or stopped, to minimise and rectify such pollution or degradation of the environment.

I also certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and imprisonment.

Signature of proponent: _____ Date: _____

APPENDIX 3

ENVIRONMENTAL MANAGEMENT PROGRAMME FOR ABALONE AQUACULTURE

The Environmental Management Programme (EMP) is applicable during the development and related operation phases or expansion and operation phases of abalone aquaculture facilities and must contain at least the following information:

Definitions: A word or expression used in this EMP has the same meaning as defined in the National Standards for land-based abalone aquaculture.

The EMP must contain the following minimum requirements:

PART A. GENERAL INFORMATION

1. General

- 1.1. Names of landowner and the proponent.
- 1.2. Postal address, telephone, email address and fax numbers of the landowner and the proponent.
- 1.3. Erf/farm number(s) of the property on which the development footprint is situated.
- 1.4. Description of the land uses and actions on all neighbouring properties.
- 1.5. Name, contact details and qualifications of the person appointed by the proponent to compile the EMP.
- 1.6. Name, contact details and qualifications of the person appointed in terms of paragraph 8(1)(a) of the standards.

PART B. LOCAL CONTEXT

2. Description of the environment:

- 2.1. Description of general climate and hydrology.
- 2.2. Description of the geology of the area.
- 2.3. Description of the soil types on the development footprint is developed.

- 2.4. Detailed description of the vegetation types on that will be transformed by the development of the development footprint and immediate surrounding area and their distribution.
- 2.5. Identification of any Critical Biodiversity Areas, Ecological Support Areas, Freshwater Ecosystem Priority Areas and/or National Priority Estuaries in the area.
- 2.6. Description of disturbed or degraded areas, such as the presence of invader plants and weeds or erosion, on the immediate surrounding area of the abalone aquaculture facility.
- 2.7. Description of all water bodies and wetlands in and around the development area.
- 2.8. Description of the coastal environment.
- 2.9. Description of coastal zone usage.

PART C. OVERVIEW OF THE DEVELOPMENT

3. Details of Development

- 3.1. Description of the existing development forming part of the development footprint (if applicable)
- 3.2. Description of the proposed development and associated actions.
- 3.3. Development location.
- 3.4. Three maps showing the regional locality, the local locality and the layout of the facility.

PART D. IMPLEMENTATION OF THE EMP

4. Responsibilities

- 4.1. The proponent
- 4.2. The site engineer and/ or site main contractor, from here on collectively referred to as site officer
- 4.3. Site personnel
- 4.4. The person appointed in terms of paragraph 8(1)(a) of the standards.

5. Penalties

A penalties list and register must be kept that records all penalties issued as well as a description of the nature of the transgression and the remedial action taken

PART E. COMMUNICATION STRUCTURES DURING DEVELOPMENT OR EXPANSION

6. Site Meetings

All meetings with the specialists and authorities must be documented and kept on record.

7. Environmental Awareness Programme

7.1. The EMP must include an environmental awareness programme that contains management measures to ensure implementation of the specifications of this standard.

7.2. The environmental awareness programme must as a minimum include the training of all new personnel regarding the requirements of these standards and the EMP.

8. Site Memo Entries

8.1. Provision must be made in contractual agreements for the person appointed in terms of paragraph 8(1)(a) of this standard to issue instructions to contract workers on measures to protect sensitive areas during development / expansion.

8.2. The EMP must detail reports provided by specialists.

9. Stakeholder Relations

9.1. A complaints register that keeps records of each complaint received by the public or an authority and the resolutions thereof must be kept.

9.2. The EMP must state where records will be kept and how feedback will be provided to the complainants.

PART F. ENVIRONMENTAL MANAGEMENT**10. Site demarcation**

The type and location of permanent and/or temporary fences must be directed by the site officer and approved by the person appointed in terms of paragraph 8(1)(a) of the standards.

11. Development / Expansion areas

11.1. All development / expansion activities must be contained within the development footprint.

11.2. The EMP must include the location and management of all development / expansion activities such as storage areas, road access, eating areas, etc., taking into consideration the sensitivities of the site.

12. Site clearance

The EMP must include measures to protect sensitive areas on site, protect topsoil to prevent erosion and address the reuse of topsoil.

13. Access/Maintenance Roads

13.1 Planning for new access and maintenance roads, including maintenance thereof (including existing roads) must be addressed.

13.2 All vehicles must remain on designated routes.

14. Temporary site structures

The location and management of temporary site structures must be informed by the sensitivities of the site. The decommissioning and rehabilitation of the site must be addressed.

15. Materials handling, use and storage

The EMP must stipulate measures for the storage, management and handling of development or expansion material.

16. Storage and transportation of fuel and oil and hazardous substances

The EMP must detail the location of storage facilities and the use thereof to ensure compliance with the specifications of the standards. The removal of contaminated material must be removed from the site to a licensed waste disposal facility.

17. Waste management

The EMP must detail the location of the waste storage and the management thereof to ensure compliance with the standards.

18. Sanitation facilities

The EMP must detail the management of temporary and permanent sanitation facilities to ensure compliance with the standards.

19. Concrete work

The safe storage and concrete batching must be done in compliance with the specifications of this standard to prevent pollution or any other harm to the environment.

20. Excavation and trenching

- 20.1. Top-soil must be stored separately from sub-soils and must be the final layer when backfilling.
- 20.2. Excavated areas must be reinstated where necessary and to the satisfaction of the site officer and the person appointed in terms of paragraph 8(1)(a) of the standards.
- 20.3. Excess material must be removed from the abalone aquaculture facility to a site agreed upon by the site officer, the person appointed in terms of paragraph 8(1)(a) of the standards and, where applicable, the municipality.
- 20.4. Location of infrastructure for excavation and trenching must be reflected on the site layout plan to indicate how sensitive areas have been avoided.

21. Drilling and rock or concrete demolition

The EMP must indicate management measures to manage impacts, waste material and disposal thereof.

22. Workshop, equipment maintenance, cleaning and storage

The location and management of activities related to the management of workshop, equipment, cleaning and storage must be addressed to prevent pollution and other environmental harm.

23. Fire control and accidental leaks and spillages

- 23.1. The EMP must indicate procedures to control fires; fire awareness; fire drills and activities that can lead to fires; and
- 23.2. Roles and responsibilities during emergency events must be included in the EMP.

24. Temporary site closure

If the site is closed for a period exceeding one week during development, a checklist procedure must be carried out by the person appointed in terms of paragraph 8(1)(a) of the standards to prevent a fire hazard, spillage and leakage and to secure vehicles, equipment and building materials.

25. National Heritage Resources

The EMP must include measures to ensure compliance with the provisions of the National Resource Heritage Act, 1999 (Act No. 25 of 1999).

26. Protection of natural features

The protection of natural features, flora and fauna, against direct and indirect impacts as a result of activities on site must be included in the EMP.

27. Erosion and soil control

Measures must be taken to sufficiently provide for the avoidance, management and mitigation to limit erosion and sedimentation.

28. Stormwater and water contamination

The EMP must include measures to manage stormwater and mitigate the contamination water related to the treatment.

29. Dust control

The EMP must include measures to sufficiently provide for the avoidance, management and mitigation to control dust.

30. Noise Control

The EMP must include measures to sufficiently provide for the avoidance, management and mitigation to control noise.

31. Site clean-up and rehabilitation of areas temporarily disturbed during development

31.1 The EMP must specify the rehabilitation measures taken to clean-up and rehabilitate areas temporarily disturbed during the development / expansion phase including the monetary and aftercare of these areas to ensure adequate rehabilitation. Compile a project-specific rehabilitation programme, compiled by a botanist or ecologist, if the development or expansion of the abalone aquaculture facility requires –

31.1.1. the disturbance of dune habitat;

31.1.2. the removal of indigenous vegetation within vulnerable ecosystems;

31.2. All temporary structures, equipment, materials, waste and facilities used for development or expansion purposes must be removed before commencement of the operational phase and to the satisfaction of the person appointed in terms of paragraph 8(1)(a) of the standards.

- 31.3. All areas identified by the person appointed in terms of paragraph 8(1)(a) of the standards and site officer must be rehabilitated.
- 31.4. A suitably qualified person must be employed to rehabilitate areas damaged by development or expansion actions during the course of the project.
- 31.5. The rehabilitation procedure must be approved by the person appointed in terms of paragraph 8(1)(a) of this standard and the site officer and where required, the Local Authorities.

APPENDIX 4

COMPLIANCE REPORTING STATEMENT

The compliance reporting statement has the purpose to report on compliance prior to and during the operational phase to clarify if a proposed project is likely to be compliant with these standards and thus does not include all provisions that the proponent must comply with. It is the proponent's responsibility to ensure that this standard is complied with in its entirety.

A compliance reporting statement must be completed and submitted by the person appointed in terms of paragraph 8(1)(a) of the standards. The first submission of the compliance reporting statement to the relevant competent authority must occur a minimum of seven days before the commencement or continuation of the operational phase and thereafter, a compliance reporting statement must be submitted annually.

| DETAILS OF PERSON COMPILING THE COMPLIANCE REPORTING STATEMENT | | | |
|---|------------------------|-----------------|--|
| Name: | | Title: | |
| Company: | | | |
| Qualifications and Experience: | | | |
| Passport | Identity Document (ID) | No. | |
| Physical Address: | | Postal Address: | |
| Email Address: | | | |
| Phone No.: | | Fax No.: | |
| <p>I, _____, hereby certify that the information in this compliance reporting statement is true and correct to the best of my knowledge.</p> <p>Signed this _____ day of _____, 20_____ at _____</p> <p>Signature : _____</p> | | | |

| Environmental aspect (Please circle applicable option) | Yes/No/Not applicable | Comments |
|---|-----------------------|----------|
| Appropriate storage is provided for fuel, oil and hazardous chemicals. | | |
| Existing access to the coast is not impeded by the abalone aquaculture facility without providing alternative access. | | |
| The effluent outfall point is in the proximity of the mean sea level on a rocky coast, or as specified in a discharge permit. | | |
| The effluent outfall point is beyond the surf zone on mixed coast and sandy coast, or as specified in a discharge permit. | | |
| Seawater intake and outfall structures, storage tanks, raceways, ponds, porta pools and settlement tanks were checked for leakage. | | |
| The proponent keeps the EMP on site, available for inspection. | | |
| Re-vegetation and rehabilitation has been satisfactorily initiated/continued/completed and in accordance with the project-specific EMP. | | |
| The project-specific stormwater management has been implemented in accordance with the project-specific EMP. | | |
| The biosecurity plan is approved by a qualified veterinarian and is kept on site, available for inspection. | | |
| The biosecurity plan is audited annually by a qualified veterinarian. | | |
| Effluent discharge is in compliance with this standard. | | |
| Applicable visual screening mechanisms have been implemented/are being maintained. | | |

| Environmental aspect (Please circle applicable option) | Yes/No/Not applicable | Comments |
|---|-----------------------|----------|
| Screens on the seawater intake sump are present/ maintained. | | |
| Measures for the prevention of escapes are implemented/ maintained. | | |
| Confirmation of/ proof of where stock is sourced from. | | |
| Details of any expansion and alterations form part of the development footprint beyond what was included in the original Notification of Intent to Comply with the Standard. | | |
| Are there any other environmental concerns that should be addressed in terms of the general environmental "Duty of Care" as contained in section 28 of the National Environmental Management Act, 1998. | | |