



environmental affairs

Department
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

Private Bag X 447· PRETORIA · 0001· Environment House · 473 Steve Biko Road, Arcadia · PRETORIA

DEA Reference: 14/12/16/3/3/1/2055

Enquiries: Ms Matthodi Mogorosi

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Ms Zimasa Jika

Department of Environment, Forestry and Fisheries: Aquaculture and Economic development

Private Bag X2

VLAEBERG

8018

Tel: 021 402 3116

Email: zjika@environment.gov.za

Dear Ms Jika

APPLICATION FOR ENVIRONMENTAL AUTHORISATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, ACT NO. 107 OF 1998, AS AMENDED: GN R982/983, AS AMENDED: THE ESTABLISHMENT OF SEA-BASED AQUACULTURE DEVELOPMENT ZONE (ADZ) IN ALGOA BAY, WITHIN THE NELSON MANDELA BAY METROPOLITAN MUNICIPALITY, EASTERN CAPE PROVINCE

With reference to the above application, please be advised that the Department has decided to grant authorisation. The Environmental Authorisation (EA) and reasons for the decision are attached herewith.

In terms of Regulation 4(2) of the Environmental Impact Assessment Regulations, 2014, as amended (the EIA Regulations), you are instructed to notify all registered interested and affected parties, in writing and within 14 (fourteen) days of the date of the EA, of the Department's as well as the provisions regarding the submission of appeals that are contained in the Regulations.

In terms of the Promotion of Administrative Justice Act, Act No. 3 of 2000, you are entitled to the right to fair, lawful and reasonable administrative action; and to written reasons for administrative action that affects you negatively. Further your attention is drawn to the provisions of the Protection of Personal Information Act, Act No. 4 of 2013 which stipulate that the Department should conduct itself in a responsible manner when collecting, processing, storing and sharing an individual or another entity's personal information by holding the Department accountable should the Department abuse or compromise your personal information in any way.

Your attention is drawn to Chapter 2 of National Environmental Management Act, Act No. 107 of 1998 National Appeal Regulations published under Government Notice R993 in Government Gazette No. 38303 dated 08 December 2014 (National Appeal Regulations, 2014), which prescribes the appeal procedure to be followed. Kindly include a copy of this document (National Appeal Regulations, 2014) with the letter of notification to interested and affected parties in this matter.

Should any person wish to lodge an appeal against this decision, he/she must submit the appeal to the appeal administrator, and a copy of the appeal to the applicant, any registered interested and affected party, and any organ of state with interest in the matter within 20 days from the date that the notification of the decision was

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sent to the registered interested and affected parties by the applicant; or the date that the notification of the decision was sent to the applicant by the Department, whichever is applicable.

Appeals must be submitted in writing in the prescribed form to:

The Director: Appeals and Legal Review of this Department at the below mentioned addresses.

By email: Appeals@environment.gov.za;

By hand: Environment House
473 Steve Biko
Arcadia
Pretoria
0083; or

By post: Private Bag X447
Pretoria
0001

Please note that in terms of Section 43(7) of the National Environmental Management Act, Act No. 107 of 1998, as amended, the lodging of an appeal will suspend the environmental authorisation or any provision or condition attached thereto. In the instance where an appeal is lodged, you may not commence with the activity until such time that the appeal is finalised.

To obtain the prescribed appeal form and for guidance on the submission of appeals, please visit the Department's website at https://www.environment.gov.za/documents/forms#legal_authorisations or request a copy of the documents at appealsdirector@environment.gov.za.

Yours faithfully


Mr Sabelo Malaza
Chief Director: Integrated Environmental Authorisations
Department Environment, Forestry and Fisheries
Date: 26/02/2020

CC:	Dr B. Clark	Anchor Research and Monitoring (Pty) Ltd	Tel: 021-701-3420	Email: vera@anchorenvironmental.co.za
	Mr. D Govender	Eastern Cape Department of Economic Development, Environmental Affairs and Tourism	Tel: 041-508-5800	Email: dayalan.govender@dedea.gov.za
	Mr. J Mkosana	Nelson Mandela Bay Metropolitan Municipality	Tel: 041-506-5444	Email: JMkosana@mandelametro.gov.za



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

Environmental Authorisation

In terms of regulation 25 of the Environmental Impact Assessment Regulations, 2014

The establishment of the Sea Based Aquaculture Development Zone (ADZ) in Algoa Bay within the Nelson Mandela Bay Metropolitan Municipality in the Eastern Cape Province

Nelson Mandela Bay Metropolitan Municipality

Authorisation register number:	14/12/16/3/3/1/2055
Last amended:	First issue
Holder of authorisation:	Department of Environment, Forestry and Fisheries: Aquaculture and Economic Development
Location of activity:	EASTERN CAPE PROVINCE: Algoa Bay, Within Nelson Mandela Bay Metropolitan Municipality.

This environmental authorisation does not negate the holder of the authorisation's responsibility to comply with any other statutory requirements that may be applicable to the undertaking of the activity.

Decision

The Department is satisfied, on the basis of information available to it and subject to compliance with the conditions of this environmental authorisation, that the applicant should be authorised to undertake the activities specified below.

Non-compliance with a condition of this environmental authorisation may result in criminal prosecution or other actions provided for in the National Environmental Management Act, 1998 (NEMA) and the Environmental Impact Assessment (EIA) regulations.

Details regarding the basis on which the Department reached this decision are set out in Annexure 1.

Activities authorised

By virtue of the powers conferred on it by the National Environmental Management Act, 1998 (Act No.107 of 1998) and the Environmental Impact Assessment Regulations, 2014 the Department hereby authorises –

Department of Environment, Forestry and Fisheries: Aquaculture and Economic development

(hereafter referred to as the **holder of the authorisation**)

with the following contact details –

Ms Zimasa Jika

Department of Environment, Forestry and Fisheries: Aquaculture and Economic Development

Private Bag X2

VLAEBERG

8018

Tel: 021 402 3116

Cell: 082 332 7943

E-mail: zjika@environment.gov.za

to undertake the following activities (hereafter referred to as "the activity") indicated in Listing Notice 1 (GN R. 983):

Listed activities	Activity/Project description
<p><u>GN R983 Item 7:</u> <i>The development and related operation of facilities, infrastructure or structures for aquaculture of sea-based cage culture of finfish, crustaceans, reptiles, amphibians, molluscs, echinoderms and aquatic plants, where the facility, infrastructure or structures will have a production output exceeding 50 000 kg per annum (wet weight).</i></p>	<p><i>Production output for finfish is proposed as a phased approach, commencing with a pilot scale for 1000 tons/annum and potentially expanding over a period of 3-5 years to carrying capacity (species and location specific).</i></p>
<p><u>GN R983 Item 15:</u> <i>The development of structures in the coastal public property where the development footprint is bigger than 50 square metres</i></p>	<p><i>Structures associated with the fish cages, bivalve structures, and boat mooring facilities. The total ADZ area will exceed 50 square metres in coastal public property.</i></p>
<p><u>GN R983 Item 17:</u> <i>Development- (i) in the sea; in respect of- (e) infrastructure or structures with a development footprint of 50 square metres or more</i></p>	<p><i>Individual operators will moor the finfish cages and bivalve farming structures to the seafloor. The combined footprint is likely to exceed 50 square metres.</i></p>
<p><u>GN R983 Item 19A:</u> <i>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— (iii) the sea</i></p>	<p><i>Individual operators will moor the finfish cages and bivalve farming structures to the seafloor. The combined volume to be deposited on the sea floor exceeds 5 cubic metres.</i></p>
<p><u>GN R983 Item 42:</u> <i>The expansion and related operation of facilities, infrastructure or structures for aquaculture of sea-based cage culture of finfish, crustaceans, reptiles,</i></p>	<p><i>There is an existing oyster farming facility (Zwembesi Farms, Knysna Oyster Company (Pty) Ltd), which will be expanded as part of the</i></p>

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Listed activities	Activity/Project description
<i>amphibians, molluscs, echinoderms and aquatic plants where the annual production output of such facility, infrastructure or structures will be increased by 50 000 kg (wet weight) or more.</i>	ADZ.
<u>GN R983 Item 54:</u> <i>The expansion of facilities-</i> <i>(i) in the sea;</i> <i>in respect of-</i> <i>infrastructure or structures where the development footprint is expanded by 50 square metres or more,</i>	<i>There is an existing oyster farming facility (Zwembesi Farms, Knysna Oyster Company (Pty) Ltd), which will be expanded as part of the ADZ.</i>
<u>GN R983 Item 67:</u> <i>Phased activities for all activities—</i> <i>(i) listed in this Notice, which commenced on or after the effective date of this Notice similarly listed in any of the previous NEMA notices, which commenced on or after the effective date of such previous NEMA Notices;</i> <i>where any phase of the activity was below a threshold but where a combination of the phases, including expansions or extensions, will exceed a specified threshold.</i>	<i>The proposed development will occur in stages, where individual operators will contribute to the expansion of the ADZ as a whole.</i>

as described in the Basic Assessment Report (BAR) dated October 2019 at:

Algoa 1 Option 1 – Summerstrand

Points	Latitude	Longitude
Centre	33° 58.610'S	25° 42.322'E
Corner points, clockwise from the northwest corner:	33° 57.440'S	25° 41.311'E
	33° 58.452'S	25° 42.781'E
	33° 59.409'S	25° 42.726'E
	33° 59.283'S	25° 42.630'E
	33° 59.296'S	25° 42.224'E

Algoa 6 – Port Elizabeth Harbour

Points	Latitude	Longitude
Centre	33° 56.020'S	25° 37.651'E
Corner points, clockwise from the northwest corner	33° 54.624'S	25° 37.668'E
	33° 54.619'S	25° 37.979'E
	33° 57.258'S	25° 37.998'E
	33° 57.256'S	25° 37.519'E
	33° 56.571'S	25° 37.210'E
	33° 55.551'S	25° 37.272'E

Algoa 7 – Ngqura Harbour

Points	Latitude	Longitude
Centre	33° 50.105'S	25° 43.098'E
Corner points, clockwise from the northwest corner	33° 50.105'S	25° 43.098'E
	33° 49.722'S	25° 41.996'E
	33° 49.717'S	25° 43.652'E
	33° 50.472'S	25° 44.148'E
	33° 50.468'S;	25° 42.497'E

the location indicated in the locality plan, attached as Annexure 2 of this authorisation.

- for the establishment of a Sea-Based Aquaculture Development Zone (ADZ) in Algoa Bay in the Nelson Mandela Metropolitan Municipality, Eastern Cape Province, hereafter referred to as "the property".

The recommended post-mitigation scenario for the project will include the following sites:

(a) ADZ Precincts

The precincts considered in this application include Algoa 1 Option 1, 6 and 7, and each of these sites has been described in more detail below.

• **Algoa 1 Option 1 (Summerstrand Site) – Bivalve culture (Oyster and Mussels)**

Algoa 1 Option 1 measures approximately 284.4ha and lies approximately 2km offshore from the popular beaches of the southern suburbs of Port Elizabeth (King's Beach, Humewood Beach, Hobie Beach, and Pollock Beach).

- **Algoa 6 (Port Elizabeth Harbour Site) – Bivalve culture (Oyster and Mussels)**

The site measures approximately 479ha and is located in water ranging in depth from 5-12m. This site is situated adjacent to the Port Elizabeth harbour wall and extends parallel to the shoreline for approximately 4.8km.

- **Algoa 7 (Ngqura Harbour site) – Finfish Culture**

Algoa 7 has been identified as a potential site for finfish culture. This site measures 355ha in size and is positioned approximately 3km offshore from the Ngqura harbour and adjacent to the recently promulgated Addo Marine Protected Area (MPA)

Fracture	Size (ha)
Algoa 1 Option 1 – Summerstrand	284.4 ha
Algoa 6 - Port Elizabeth Harbour	479 ha
Algoa 7 – Ngqura Harbour	355 ha
Total ADZ size	1 118.4 ha

(b) **Species and methods for aquaculture production**

The following species are considered for farming in the ADZ:

- Currently cultivated bivalve species:
 - Pacific oyster (*Crassostrea gigas*) (alien)
- New bivalve species:
 - Cape Rock Oyster *Striostrea margaritacea* (indigenous)
 - Black mussel *Choromytilus meridionalis* (indigenous)
 - Brown mussel *Perna perna* (indigenous)
 - Mediterranean mussel *Mytilus galloprovincialis* (alien)
- New finfish species (only indigenous species are considered):
 - Yellowtail (*Seriola lalandi*)
 - Dusky kob (*Argyrosomus japonicas*)
 - Silver kob (*Argyrosomus inodorus*)
 - Yellowfin tuna (*Thunnus albacares*)
 - Sole
 - Geelbek (*Atractoscion aequidens*)

- Spotted grunter (*Pomadasys commersonii*)
- White steenbras (*Lithognathus lithognathus*)
- White stumpnose (*Rhabdosargus globiceps*)
- Red roman (*Chrysoblephus laticeps*)

Viable production methods for farming in the ADZ:

- Longlines for bivalve culture, comprising a surface rope with floats and moored at each end to fix the line in position. The production ropes for mussels or oyster racks are then suspended from the surface rope;
- Cages for finfish production, constructed of circular flexible high-density polyethylene with multimooring systems.

(c) Finfish Production Volumes

Precinct	Species	Total annual production per ADZ precinct
Algoa 7	<i>Seriola lalandi</i>	3 555
	<i>Argyrosomus regius</i>	4 947

A precautionary phased approach is proposed for finfish farming in the ADZ, where activities in the first year of operation would be limited to pilot operations producing 1000 tonnes finfish per annum for the entire ADZ. Bio-physical and socio-economic monitoring studies will be conducted during the first phase of the establishment of the ADZ and would determine the acceptable maximum scale of the ADZ based on observed environmental impacts. The phased approach would be overseen by the ADZ Management Committee (AMC) and the Consultative Forum.

(d) Sea-based Aquaculture Activities

Sea-based activities associated with aquaculture in the ADZ include:

- Servicing and maintenance of aquaculture structures (such as rafts, lines, cages);
- Seeding/acclimating and harvesting of cultivated species;
- Harvesting of cultivated species;
- Initial processing of bivalves, including de-clumping and grading, typically on the raft or support vessel; and

- Vessel trips between the shore and aquaculture areas, e.g. to service structures or harvest species.

(e) Associated Sea-based Infrastructure

Besides the rafts, lines, cages and barrels (including moorings and flotation devices) required for aquaculture, the following associated sea-based infrastructure is required:

- Navigational lights demarcating aquaculture areas; and
- Mooring facilities for boats.

Note that this environmental authorisation does not include the following:

- 1) Authorisation of the land based facilities, since the detailed information for land based facilities will depend on the specific cultivated species and production methods chosen by the individual operators within the ADZ. Should the land based activities of the individual operators leasing areas within the ADZ trigger any listed activities in terms of the NEMA EIA Regulations, authorisation for those land based activities will need to be obtained from the relevant Competent Authority prior to commencement of the activity by the individual operators; and
- 2) Authorisation of currently allocated and farmed areas within the ADZ, since these areas are already existing.
- 3) *Algoa 1 – Option1- : Summerstrand, with a total areas of 27.6 ha located as per the below geographic coordinates:*

Points	Latitude	Longitude
Excised Area as per recommendations in the marine ecology and socio-economic studies:	33° 58.811'S	25° 42.025'E
	33° 58.685'S	25° 42.407'E
	33° 58.468'S	25° 42.302'E
	33° 58.593'S	25° 41.921'E

Conditions of this Environmental Authorisation

Scope of authorisation

1. The post mitigation scenario presented as Option B (bivalve farming at Algoa 1 Option 1, bivalve farming at Algoa 6 and finfish farming at Algoa 7) as the preferred Alternative Option for the establishment of the Sea-Based Aquaculture Development Zone (ADZ) in Algoa Bay, within the Nelson Mandela Metropolitan Municipality in the Eastern Cape Province is approved as per the geographic coordinates cited above (excluding currently allocated and farmed areas, and areas where authorisations have been issued to other aquaculture operators for the same areas, as per the above).
2. Authorisation of the activity is subject to the conditions contained in this environmental authorisation, which form part of the environmental authorisation and are binding on the holder of the authorisation.
3. The holder of the authorisation is responsible for ensuring compliance with the conditions contained in this environmental authorisation. This includes any person acting on the holder's behalf, including but not limited to, an agent, servant, contractor, sub-contractor, employee, consultant or person rendering a service to the holder of the authorisation.
4. The activities authorised may only be carried out at the property as described above.
5. Any changes to, or deviations from, the project description set out in this environmental authorisation must be approved, in writing, by the Department before such changes or deviations may be effected. In assessing whether to grant such approval or not, the Department may request such information as it deems necessary to evaluate the significance and impacts of such changes or deviations and it may be necessary for the holder of the authorisation to apply for further environmental authorisation in terms of the regulations.
6. The holder of an environmental authorisation must apply for an amendment of the environmental authorisation with the competent authority for any alienation, transfer or change of ownership rights on the property on which the activity is to take place.
7. This activity must commence within a period of five (05) years from the date of issue of this environmental authorisation. If commencement of the activity does not occur within that period, the authorisation lapses and a new application for environmental authorisation must be made in order for the activity to be undertaken.

8. Commencement with one activity listed in terms of this environmental authorisation constitutes commencement of all authorised activities.
9. Construction must be completed within five (05) years of the commencement of the activity on site.

Notification of authorisation and right to appeal

10. The holder of the authorisation must notify every registered interested and affected party, in writing and within 14 (fourteen) calendar days of the date of this environmental authorisation, of the decision to authorise the activity.
11. The notification referred to must –
 - 11.1. specify the date on which the authorisation was issued;
 - 11.2. inform the interested and affected party of the appeal procedure provided for in the National Appeal Regulations, 2014;
 - 11.3. advise the interested and affected party that a copy of the authorisation will be furnished on request; and
 - 11.4. give the reasons of the competent authority for the decision.

Commencement of the activity

12. The authorised activity shall not commence until the period for the submission of appeals has lapsed as per the National Appeal Regulations, 2014 and no appeal has been lodged against the decision. In terms of section 43(7), an appeal under section 43 of the National Environmental Management Act, 1998 will suspend the environmental authorisation or any provision or condition attached thereto. In the instance where an appeal is lodged you may not commence with the activity until such time that the appeal has been finalised.

Management of the activity

13. The Environmental Management Programme (EMPr) submitted as part of the Application for EA is hereby approved. This EMPr must be implemented and strictly adhered to. Individual operators must compile individual site specific EMPrs for the individual farms that are to be leased in the ADZ. The individual EMPrs must be in line with the recommendations of this overarching approved EMPr and the conditions of this EA. The individual EMPrs must be submitted to the ADZ Monitoring

Committee (AMC) (see Condition 14 below) for endorsement and to the Department for record keeping purposes, before commencement of operations by the individual operator.

ADZ Management

14. To ensure appropriate ADZ management, two management bodies must be established by the holder of the authorisation prior to commencement of the activity.

14.1. An ADZ Management Committee (AMC), comprising of, but not limited to, the following:

- Department of Environment, Forestry and Fisheries (DEFF) ;
 - Aquaculture and Economic Development
 - Oceans and Coasts ;
 - Biodiversity Management
 - Compliance Monitoring
- Eastern Cape Provincial Department of Economic Development, Environmental Affairs and Tourism (DEDEAT);
- The Nelson Mandela Bay Municipality ;
- Transnet National Port Authority:
 - Port of Ngqura;
 - Port of Port Elizabeth
- South African Civil Aviation: Environment Department
- Department of Sport and Recreation (national, provincial and local); and

14.2. A Consultative Forum that includes other relevant government departments and relevant local/public interest organisations, to review environmental monitoring data, advise on management and recommend measures to the AMC. The Consultative Forum will therefore feed into the AMC through outputs that it provides to the AMC for consideration.

15. Upon establishment of the Consultative Forum, a notice must be published in a local newspaper announcing the creation of the Consultative Forum, providing contact details for the Consultative Forum Secretariat and inviting interested stakeholders to register on a stakeholder database to receive relevant notifications about the ADZ.

ADZ Management Committee

16. The function of the AMC is to oversee, facilitate, manage and monitor aquaculture operations in the ADZ. The Department of Environment, Forestry and Fisheries: Aquaculture and Economic Development (DEFF:AED), as the applicant, is primarily responsible for day-to-day management of the ADZ and ensuring the implementation of and adherence to the overarching approved EMPr, with appropriate support and guidance provided by the other AMC members:
17. The AMC must meet before the commencement of construction activities to appoint a Chairperson, a Environmental Control Officer (ECO), and to discuss the Terms of Reference (the member constitution, purpose, outcomes, roles and functions of the AMC, including but not limited those specified in this authorisation). From then on, the AMC must sit once every two months and special meetings can be convened on special or emergency situations.
18. The AMC must be consulted before the appointment of the project ECO, to ensure that they are suitably qualified and have the relevant expertise to monitor and ensure compliance with the conditions of the EA and EMPr.
19. The Chairperson must be an independent person, with experience in the environmental management and marine aquaculture field and/ or industry.
20. Key functions of the AMC are to:
 - 20.1. Monitor aquaculture operators' compliance with the EMPr and ADZ EA conditions;
 - 20.2. Oversee environmental monitoring related to aquaculture in Algoa Bay;
 - 20.3. Monitor production volumes in the ADZ;
 - 20.4. Make decisions based on the outcomes of environmental monitoring, which could lead to the amendment of operations within the authorised ADZ;
 - 20.5. Settle disputes regarding the interpretation of requirements in the EMPr and EA;
 - 20.6. Receive and manage stakeholder comments;
 - 20.7. Record and, if necessary, coordinate a response to environmental incidents related to aquaculture operations;
 - 20.8. Review and comment on new / expanded aquaculture farm proposals within the approved ADZ; and
 - 20.9. Provide updated information to the public (e.g. farm coordinates, water quality information, and notification of new aquaculture operations).
21. The AMC organisational structure must make provision for various functions, including:
 - 21.1. Chairperson: Calls and chairs meetings of the AMC;

- 21.2. Secretariat: Fulfils secretariat functions, including:
- 21.2.1. Maintenance of member details and arrangement of meetings;
 - 21.2.2. Compiling and distribution of meeting notes;
 - 21.2.3. Distribution of communication to AMC members and aquaculture farmers in the ADZ;
 - 21.2.4. Maintenance of a database of registered (public) stakeholders;
 - 21.2.5. Drafting and distribution of regular (at least biannual) AMC Reports to all Consultative Forum members and registered stakeholders on activities in the ADZ;
 - 21.2.6. Administration of and responding to stakeholder comments on aquaculture activities in the ADZ; and
 - 21.2.7. Reporting on stakeholder aspects at AMC meetings.
- 21.3. Environmental Representative: Fulfils environmental control functions, including:
- 21.3.1. Liaising with the suitably qualified service provider(s) appointed to attend to environmental sampling, monitoring and auditing aspects in the ADZ to ensure that monitoring is implemented as per the requirements;
 - 21.3.2. Receiving and reviewing monthly Farm Monitoring Reports;
 - 21.3.3. Receiving and reviewing environmental sampling, monitoring and audit results;
 - 21.3.4. Notifying the Chairperson in the event any aspects require immediate attention of the AMC;
 - 21.3.5. Notifying the Secretariat in the event any aspects require immediate attention of other aquaculture farmers in the ADZ; and
 - 21.3.6. Reporting on environmental aspects at AMC meetings.

Consultative Forum

22. The holder of the authorisation must invite representatives of other relevant government departments, authorities, relevant local / public interest organisations and ADZ operators to become members of the Consultative Forum, including the following institutions / organisations:

22.1. Government and authorities:

- South African National Parks (SANParks);
- Eastern Cape Department of Agriculture and Land Affairs;
- South African Heritage Resource Agency (SAHRA) – Maritime and Underwater Cultural Heritage (MUCH) Unit;

- Nelson Mandela Bay Metropolitan Municipality; and
- Sarah Baartman District Municipality

22.2. Aquaculture Industry:

- Local industry association representing operators in the ADZ;
- Farmers operating in the ADZ.

22.3. Other organisations:

- Eastern Cape Parks and Tourism Agency; and
- Representatives from the various user groups (tourism, fisheries, diving, yachting, surfing, lifesaving etc.)
- Representatives of sport events and festivals including, but not limited to:
 - Splash Festival;
 - Jendemark Nelson Mandela Bay Bell Buoy Challenge;
 - City Lodge Hotels' 3 Beaches Challenge;
 - Summer Triathlon Series;
 - City Surf Pro;
 - aQuellé Ocean Racing Series;
 - Lifesaving competitions;
 - International Yachting Volvo Ocean Race;
 - National and international Hobie 16 Championships;
 - Mirror Worlds Championships;
- Scientific representatives from NMU and/or Rhodes Universities;
- South African Environmental Observation Network (SAEON);
- Wildlife and Environmental Society of South Africa (WESSA);
- Southern African Foundation for the Conservation of Coastal Birds (SANCCOB);
- Endangered Wildlife Trust (EWT);
- Ratepayers Associations and members of the public; and
- Airports Company South Africa Port Elizabeth.

23. Forum members will join on a voluntary basis and at no costs to DEFF:AED.

24. Key functions of the Consultative Forum are to:

- 24.1. Review environmental monitoring data related to aquaculture in Algoa Bay;
 - 24.2. Make recommendations to the AMC based on the outcomes of environmental monitoring;
- and

- 24.3. Provide a platform for discussion of environmental management in the ADZ and advise the AMC on ADZ Management.

Frequency and process of updating the EMPr

25. The EMPr must be updated where the findings of the environmental audit reports, contemplated in Condition 32 below, indicate insufficient mitigation of environmental impacts associated with the undertaking of the activity, or insufficient levels of compliance with the environmental authorisation or EMPr.
26. The updated EMPr must contain recommendations to rectify the shortcomings identified in the environmental audit report.
27. The updated EMPr must be submitted to the Department for approval together with the environmental audit report, as per Regulation 34 of GN R. 982. The updated EMPr must have been subjected to a public participation process, which process has been agreed to by the Department, prior to submission of the updated EMPr to the Department for approval.
28. In assessing whether to grant approval of an EMPr which has been updated as a result of an audit, the Department will consider the processes prescribed in Regulation 35 of GN R.982. Prior to approving an amended EMPr, the Department may request such amendments to the EMPr as it deems appropriate to ensure that the EMPr sufficiently provides for avoidance, management and mitigation of environmental impacts associated with the undertaking of the activity.
29. The holder of the authorisation may apply for an amendment of an EMPr, if such amendment is required before an audit is required. In assessing whether to grant such approval or not, the Department will consider the processes and requirements prescribed in Regulation 37 of GN R. 982.

Monitoring

30. The holder of the authorisation must appoint a suitably qualified and experienced independent Environmental Control Officer (ECO) for the construction and operational phase of the development that will have the responsibility to ensure that the mitigation/rehabilitation measures and recommendations referred to in this authorisation are implemented and to ensure compliance with the provisions of the EMPr.
- 30.1. The ECO must be appointed before commencement of any authorised activities.

- 30.2. Once appointed, the name and contact details of the ECO must be submitted to the *Director: Compliance Monitoring* of the Department.
- 30.3. The ECO must keep record of all activities on site, problems identified, transgressions noted and a schedule of tasks undertaken by the ECO.
- 30.4. All monitoring studies conducted/commissioned by the Department of Agriculture, Forestry and Fisheries within Algoa Bay must be reviewed by an independent specialist to verify findings before the report is submitted to the AMC.
- 30.5. *Individual operators must ensure that daily monitoring is undertaken. Findings of the daily monitoring must be verified* and signed off by the ECO on a monthly basis and reflected in the ECO reports, which must be presented by the ECO to the AMC at the bi-monthly meetings.
- 30.6. The ECO must also submit a detailed and comprehensive monitoring report to the Directorate: Compliance Monitoring on a monthly basis. A summarised version of this report must also be made available to all AMC members on a monthly basis.

Recording and reporting to the Department

31. All documentation e.g. audit/monitoring/compliance reports and notifications, required to be submitted to the Department in terms of this environmental authorisation, must be submitted to the *Director: Compliance Monitoring* of the Department at Directorcompliance@environment.gov.za.
 32. The holder of the environmental authorisation must, for the period during which the environmental authorisation and EMPr remain valid, ensure that project compliance with the conditions of the environmental authorisation and the EMPr are audited, and that the audit reports are submitted to the *Director: Compliance Monitoring* of the Department at Directorcompliance@environment.gov.za.
 33. The frequency of auditing and of submission of the environmental audit reports must be as per the frequency indicated in the EMPr, taking into account the processes for such auditing as prescribed in Regulation 34 of GN R. 982.
 34. The holder of the authorisation must, in addition, submit an environmental audit report to the Department within 30 days of completion of the construction phase (i.e. within 30 days of site handover) and a final environmental audit report within 30 days of completion of rehabilitation activities.
 35. The environmental audit reports must be compiled in accordance with Appendix 7 of the EIA Regulations, 2014 and must indicate the date of the audit, the name of the auditor and the outcome
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of the audit in terms of compliance with the environmental authorisation conditions as well as the requirements of the approved EMPr.

36. Records relating to monitoring and auditing must be kept on site and made available for inspection to any relevant and competent authority in respect of this development.

Notification to authorities

37. A written notification of commencement must be given to the Department no later than fourteen (14) days prior to the commencement of the activity. Commencement for the purposes of this condition includes site preparation. The notice must include a date on which it is anticipated that the activity will commence, as well as a reference number.

Operation of the activity

38. A written notification of operation must be given to the Department no later than fourteen (14) days prior to the commencement of the activity operational phase.

Site closure and decommissioning

39. Should the activity ever cease or become redundant, the holder of the authorisation must undertake the required actions as prescribed by legislation at the time and comply with all relevant legal requirements administered by any relevant and competent authority at that time.

Specific conditions

40. Carrying capacity for Algoa 7 must be verified through environmental monitoring
41. Access to the Basket Star dive site must be maintained to reduce impacts on the diving industry.
42. An integrated waste management approach must be implemented that is based on waste minimisation and must incorporate reduction, recycling, re-use and disposal where appropriate. Any solid waste must be disposed of at a landfill licensed in terms of section 20 (b) of the National Environment Management Waste Act, 2008 (Act No.59 of 2008).

43. Mariculture infrastructure must not be moored over long-lived biogenic habitats (e.g. reefs). The extent of the reef must be confirmed prior to commencement of construction activities and no mariculture infrastructure must be situated within 200m buffer zone around the geographic coordinates S33° 58. 620'; E25° 42. 223'.
44. Underwater videography; diver operated or by using drop cameras or remotely operated vehicles must be used to determine the extent of the reef.
45. A finfish biosecurity management plan must be developed to provide mitigation measures to (1) reduce the likelihood of finfish escape occurring; (2) ensure comprehensive training of staff; (3) monitor stock comprehensively for disease and/parasites as part of a formalised stock health monitoring programme and take necessary action to eliminate pathogens through the use of therapeutic chemicals or improved farm management (lowest effective dose); (4) locate cages stocked with different cohorts of the same species as far apart as possible (no less than 100m).
46. Genetic compatibility between wild and cultured finfish stock must be facilitated by the implementation of the "Genetic Best Practice Management Guidelines for Marine Finfish Hatcheries" developed by DEFF: AED and ensure adequate genetic monitoring.
47. Appropriate predator nets and visual deterrents must be installed and maintained for finfish culture. A protocol for dealing with problem piscivores in conjunction with experts and officials should be developed.
48. The cleaning of biofouled infrastructure (ropes etc.) for oysters must be conducted in such a way as to minimise deposition to the seafloor beneath the farms (i.e. biofouling must be collected as deposited of at a suitable onshore disposal facility). Routine surveillance on and around marine farm structures, associated vessels and infrastructure must be undertaken for indications of non-native fouling species. If spat import cannot be avoided, culture facilities should only be permitted to use spat sourced from biosecure certified hatcheries and/or quarantine facilities.
49. Diver surveys must be completed during the activities required for setting anchor arrays. Commercial divers working on the project must be provided with brief orientation training. If wreck material is identified, archaeologists must be contracted to make an assessment.
50. Benthic Mapping / survey of the area under individual farms must be undertaken by prospective operators before the commencement of the operational phase in order to establish baseline conditions for monitoring purposes.
51. Monitoring points must be established before the commencement of farming activities on each site in order to measure pre-farming baseline conditions with observed conditions during the operational phase. The number and placement of these monitoring points, and the parameters measured, must be appropriate to the mariculture activity type (and its by-products) at that site, the benthic habitat

at that site, as well as the prevailing environmental conditions (such as the dominant current directions). The information gathered from monitoring points must be used to guide the phased development of each site.

52. Predictive dispersion models must be developed within 2 years of new aquaculture activities commencing and these must be used together with monitoring and other information to inform the continuous management of the Algoa Bay Aquaculture Development Zone.
53. Any geophysical data generated to support the development of aquaculture in this area must be archaeologically reviewed for the presence of historical shipwrecks or related material and to ground truth proposed mooring locations. Datasets that are particularly useful in this regard are magnetometer, side scan sonar and multibeam bathymetric data. An archaeologist must be consulted before data are collected to ensure that the survey specifications and data outputs are suitable for archaeological review.
54. Any video footage collected support to development of aquaculture in the three areas should ideally also be reviewed by the archaeologist for evidence of shipwreck material on the seabed.
55. If geophysical data are not collected, the proposed positions of all moorings must be ground truthed by suitably qualified divers.
56. Should the reviews and ground truthing set out above identify wreck material at or near the location of any proposed mooring, micro-siting of the mooring and the possible implementation of an exclusion zone around the archaeological feature should be sufficient to mitigate the risks to the site.
57. Should any archaeological material, be accidentally encountered during the course of developing aquaculture operations in any of the proposed areas, work must cease in that area until the project archaeologist and SAHRA have been notified, the find has been assessed by the archaeologist, and agreement has been reached on how to deal with it.
58. A detailed anchor distribution plan must be provided to the Maritime and Underwater Cultural Heritage Unit at SAHRA once this has been finalised. This plan can be used to reassess potential shipwreck impacts to assist developers in determining whether to amend placement plans to avoid incurring further heritage intervention costs.

ADZ phasing-in of aquaculture expansion

59. Due to the impact level observed even after mitigation and the inclusion of Algoa 7 (MPA site) in options A, B and C, it is recommended that no more than three finfish operators should be

approved for an initial pilot phase, with a total annual production for the ADZ not exceeding 1 000 tonnes in the first year.

60. Should monitoring reveal acceptable impacts as defined by the environmental quality objectives, indicators and performance measures, operators should be permitted to increase production from pilot phase to full commercial scale (not exceeding the carrying capacity at each site for *Seriola lalandi* and *Argyrosomus sp.* as recommended in over at least a three year period, provided that resource quality objectives are maintained.

Precinct	Species	Total annual production per ADZ precinct
Algoa 7	<i>Seriola lalandi</i>	3 555
	<i>Argyrosomus regius</i>	4 947

61. The holder of the authorisation must ensure that the findings of the dispersion modelling inform the site specific EMPs (to be compiled individual operators), Sampling Plan, ADZ layout and expansion.
62. Environmental monitoring must be implemented to inform management and expansion of operations as part of the phased approach

General

63. A copy of this environmental authorisation, the audit and compliance monitoring reports, and the approved EMP, must be made available for inspection and copying-
- 63.1. at the site of the authorised activity;
- 63.2. to anyone on request; and
- 63.3. where the holder of the environmental authorisation has a website, on such publicly accessible website.
64. National government, provincial government, local authorities or committees appointed in terms of the conditions of this authorisation or any other public authority shall not be held responsible for any damages or losses suffered by the holder of the authorisation or his/her successor in title in any instance where construction or operation subsequent to construction be temporarily or permanently stopped for reasons of non-compliance by the holder of the authorisation with the conditions of authorisation as set out in this document or any other subsequent document emanating from these conditions of authorisation.

Date of environmental authorisation: 26/02/2020



Mr Sabelo Malaza

Chief Director: Integrated Environmental Authorisations
Department of Environmental Affairs

Annexure 1: Reasons for Decision

1. Information considered in making the decision

In reaching its decision, the Department took, *inter alia*, the following into consideration -

- a) The information contained in the final BAR dated October 2019;
- b) The comments received from DEA: Branch: Oceans and Coasts; Eastern Cape Department of Economic Development, Environmental Affairs and Tourism; the Nelson Mandela Bay Metropolitan Municipality; SANParks; WESSA; SAHRA; and Interested and Affected Parties as included in the final BAR dated October 2019;
- c) Mitigation measures as proposed in the BAR dated October 2019 and the EMPr;
- d) The information contained in the specialist studies contained in the BAR; and
- e) The objectives and requirements of relevant legislation, policies and guidelines, including section 2 of the National Environmental Management Act, 1998 (Act No.107 of 1998).

2. Key factors considered in making the decision

All information presented to the Department was taken into account in the Department's consideration of the application. A summary of the issues which, in the Department's view, were of the most significance is set out below.

- a) The existing areas are not authorised as part of this environmental authorisation, however the approved ADZ EMPr must inform and be used to manage any future expansion of allocated existing areas.
- b) The findings of all the specialist studies conducted and their recommended mitigation measures.
- c) In terms of need and desirability, the proposed project could indirectly improve food security by providing job opportunities and contributing to the local and regional economy. Furthermore, the proposed project could contribute to import substitution and therefore create local opportunities instead of purchasing products were socio economic impacts are realised elsewhere, (although this benefit is incumbent on ensuring that existing and planned projects and plans related to the tourism industry are not impacted negatively). Emerging trends, which are also applicable to

South Africa have shown that aquaculture (including marine finfish culture) could positively contribute to addressing the following:

- Increasing demand for fish products in the coming decades as a result of continued growth in the world population;
 - Major increases in fish food production are forecasted to come from aquaculture;
 - Lack of fresh water and space; and
 - Marine aquaculture holds potential for sustained growth due to declining fishing catches.
- d) The project forms part of a presidential initiative to unlock the potential of the oceans to create employment and income in coastal communities, and specifically aims to create incentives for development of the aquaculture industry in Algoa Bay, which has historically already provided skills development and employment in the area. As such, the project forms part of a government initiative and aims to further the objectives of the National Development Plan in terms of economic development.
- e) Due to the impact level observed even after mitigation and the inclusion of Algoa 7 (MPA site) in options A, B and C, through a precautionary approach, it is recommended that no more than three finfish operators should be approved for an initial pilot phase, with a total annual production for the ADZ not exceeding 1 000 tonnes in the first year. Should monitoring reveal acceptable impacts as defined by the environmental quality objectives, indicators and performance measures, operators should be permitted to increase production from pilot phase to full commercial scale (not exceeding the carrying capacity at each site for *Seriola lalandi* and *Argyrosomus sp.* as recommended in over at least a three year period, provided that resource quality objectives are maintained.
- f) The establishment of an ADZ Management Committee (AMC) and Consultative Forum will also help to ensure compliance with the approved EMPr and appropriate ADZ management.
- g) The final BAR dated October 2017 identified all relevant environmental legislation and guidelines that have been considered in the preparation of the final BAR dated October 2019.
- h) The methodology used in assessing the potential impacts identified in the final BAR dated October 2019 and the specialist studies has been adequately indicated.
- i) A sufficient public participation process was undertaken and the applicant has satisfied the minimum requirements as prescribed in the EIA Regulations, 2014, as amended, for public involvement.

3. Findings

After consideration of the information and factors listed above, the Department made the following findings -

- a) The identification and assessment of impacts are detailed in the final BAR dated October 2019 and sufficient assessment of the key identified issues and impacts have been completed.
- b) The procedure followed for impact assessment is adequate for the decision-making process.
- c) The proposed mitigation of impacts identified and assessed adequately curtails the identified impacts.
- d) According to the independent Environmental Assessment Practitioner, the information contained in the final BAR dated October 2019 is accurate and credible.
- e) EMPr measures for the pre-construction, construction and rehabilitation phases of the development were proposed and included in the final BAR and will be implemented to manage the identified environmental impacts during the construction phase.

In view of the above, the Department is satisfied that, subject to compliance with the conditions contained in the environmental authorisation, the authorised activities will not conflict with the general objectives of integrated environmental management laid down in Chapter 5 of the National Environmental Management Act, 1998 and that any potentially detrimental environmental impacts resulting from the authorised activities can be mitigated to acceptable levels. The environmental authorisation is accordingly granted.

