



## environmental affairs

Department:  
Environmental Affairs  
REPUBLIC OF SOUTH AFRICA

# Environmental Authorisation

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

Sea Based Aquaculture Development Zone (ADZ) in Saldanha Bay within Saldanha Bay Local Municipality in the Western Cape Province

West Coast District Municipality

<b>Authorisation register number:</b>	14/12/16/3/3/1/1728
<b>Last amended:</b>	<i>First issue</i>
<b>Holder of authorisation:</b>	DEPARTMENT OF AGRICULTURE, FORESTRY AND FISHERIES: AQUACULTURE AND ECONOMIC DEVELOPMENT
<b>Location of activity:</b>	WESTERN CAPE PROVINCE: <i>Within Saldanha Bay</i>

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 AGRICULTURE, FORESTRY AND FISHERIES: AQUACULTURE AND ECONOMIC DEVELOPMENT**

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

with the following contact details –

Ms Asanda Njobeni

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

Private Bag X2

**ROGGEBAAI**

8012Tel: 021 402 3116

E-mail: AsandaN@daff.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 R. 983 Item 7:</u></p> <p><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>The ADZ aims to establish new facilities, infrastructure or structures in Saldanha Bay for sea-based cultivation, primarily of molluscs (e.g. mussels, oysters), seaweeds and finfish.</p> <p>The ADZ area is projected to potentially produce up to:</p> <ul style="list-style-type: none"> <li>- 27 597 ungraded / 15 203 graded tpa of bivalves; and</li> <li>- 5 000 tpa of finfish.</li> </ul> <p>Anticipated production will thus exceed the threshold of 50 tpa at full operation of the ADZ.</p> <p>Anticipated ADZ facilities, infrastructure or structures include:</p> <ul style="list-style-type: none"> <li>• Structures such as mussel rafts, longlines, fish cages and barrels, moored to the sea bed and held afloat by buoys, in four designated ADZ precincts within Saldanha Bay; and</li> <li>• Navigational buoys and lights to demarcate the position of aquaculture areas / infrastructure.</li> </ul> <p>It is expected that operators will initially make use of existing land-based facilities and vessel (off-) loading and mooring structures.</p>
<p><u>GN R. 983 Item 17:</u></p> <p><i>Development</i></p> <p><i>(i) in the sea;</i></p> <p><i>in respect of</i></p>	<p>The aquaculture structures (such as mussel rafts, longlines, fish cages and barrels) will be moored to the sea bed. The combined footprint of moorings for each</p>

*MS*

Listed activities	Activity/Project description
<i>(f) infrastructure or structures with a development footprint of 50 square metres or more.</i>	structure is well below 50 m <sup>2</sup> . The combined footprint of all moorings for all structures within the ADZ may however exceed 50 m <sup>2</sup> .
<u>GN R. 983 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:</i> <i>(iii) the sea.</i>	The development may result in the moving of more than 5m <sup>3</sup> of sand, shells or rock in the sea and depositing of material of more than 5 m <sup>3</sup> (e.g. anchor blocks and/or mussel shells) into the sea.
<u>GN R.983 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, 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>	A total of 464 ha are currently allocated for aquaculture in Saldanha Bay; of these 151 ha are operational. Existing operators also manage a number of on-shore processing facilities. The existing aquaculture areas will be located in and incorporated into the future ADZ areas. The ADZ will increase the total allocated aquaculture area by 420 ha to 884 ha in future. Annual production is expected to increase by more than 50 000 kg (wet weight) per annum at full operation of the ADZ. Spatially, the ADZ may thus be considered an expansion of existing aquaculture facilities, infrastructure or structures. However, the new farms in the ADZ may also be considered new (though similar) structures, which may be operated by a range of (existing and/or new) operators, in which case GN R. 983 Activity 7 applies.
<u>GN R.983 Activity 54:</u> <i>Expansion of facilities (i) in the sea in respect of (f) infrastructure or structures where the development footprint is expanded by 50 square metres or more.</i>	The aquaculture structures (such as rafts, longlines and fish cages) will be moored to the sea bed. The combined footprint of moorings for each structure is well below 50

*M.S*

Listed activities	Activity/Project description
	<p>m<sup>2</sup>. The combined footprint of all moorings for all structures within the ADZ may, however, exceed 50 m<sup>2</sup>.</p> <p>As aquaculture structures are already moored in Saldanha Bay, the ADZ may thus spatially be considered an expansion of existing infrastructure in the sea by more than 50 m<sup>2</sup>.</p> <p>However, the new farms in the ADZ may also be considered new (though similar) structures, which may be operated by a range of (existing and/or new) operators, in which case GN R. 983 Activity 42 applies.</p>

as described in the Basic Assessment Report (BAR) dated August 2017 at:

	Point	Latitude ( S )			Longitude ( E )		
		DEG	MIN	SEC	DEG	MIN	SEC
Outer Bay North	A	33	2	32.1	17	55	51.3
Outer Bay North	B	33	1	56.04	17	57	26.52
Outer Bay North	C	33	2	48.06	17	56	30.24
Outer Bay North	D	33	2	39.18	17	56	7.56
Small Bay South	E	33	1	39.9	17	57	52.2
Small Bay South	F	33	1	32.22	17	58	7.62
Small Bay South	G	33	2	9.18	17	58	32.22
Small Bay South	H	33	2	21.9	17	58	25.92
Small Bay North	I	33	0	12.6	17	57	42.6
Small Bay North	J	33	0	12.78	17	58	1.8
Small Bay North	K	33	0	22.5	17	58	1.68
Small Bay North	L	33	0	22.8	17	58	34.5
Small Bay North	M	33	0	30.9	17	58	34.38
Small Bay North	N	33	0	31.02	17	58	42.12
Small Bay North	O	33	0	39.12	17	58	42
Small Bay North	P	33	0	38.88	17	58	22.74
Small Bay North	Q	33	0	46.98	17	58	22.62
Small Bay North	R	33	0	46.92	17	58	13.02
Small Bay North	S	33	0	53.4	17	58	12.9
Small Bay North	T	33	0	53.34	17	57	37.32
Small Bay North	U	33	0	40.2	17	57	37.38
Small Bay North	V	33	0	40.26	17	57	42.24
Big Bay North	W	33	1	2.7	18	1	9.36
Big Bay North	X	33	1	53.52	18	1	49.32
Big Bay North	Y	33	2	51.06	18	1	34.5

Big Bay North	Z	33	3	1.86	18	0	22.26
Big Bay North	AA	33	1	56.88	18	0	53.4
Big Bay North	AB	33	1	54.6	18	0	46.2
Outer Bay South	AC	33	4	23.58	17	56	57.66
Outer Bay South	AD	33	4	8.64	17	57	51.66
Outer Bay South	AE	33	4	42.36	17	57	51.66
Outer Bay South	AF	33	4	34.26	17	56	57.66

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 Saldanha Bay in the Western Cape Province, hereafter referred to as "the property".

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

**(a) ADZ Areas**

The recommended post-mitigation ADZ area comprises four precincts in Saldanha Bay, adding 420ha of new aquaculture areas in Saldanha Bay for a total ADZ comprising 884ha:

- Small Bay: no additional aquaculture areas;
- Big Bay North: north of Mykonos entrance channel;
- Outer Bay North: north of Port entrance channel, near Malgas Island; and
- Outer Bay South: south of Port entrance channel, near Jutten Island.

Currently farmed areas will be incorporated into the ADZ:

Area	Currently allocated	Currently farmed	New areas	Total future
Small Bay	163	125	-	163
Big Bay North	254	25	155	409
Outer Bay North	37	1	179	216
Outer Bay South	10	-	86	96
<b>Total</b>	<b>464</b>	<b>151</b>	<b>420</b>	<b>884</b>

**(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*)
  - Mediterranean mussel (*Mytilus galloprovincialis*)
  - Black mussel (*Choromytilus meridionalis*)
  - New indigenous shellfish species:
    - Abalone (*Haliotis midae*)
    - South African scallop (*Pecten sulcicostatus*)
- New indigenous finfish species:
  - White Stumpnose (*Rhabdosargus globiceps*)
  - Kabeljou (*Argyrosomus inodorus*)
  - Yellowtail (*Seriola lalandi*)
- Alien finfish species:
  - Atlantic salmon (*Salmo salar*)
  - Coho salmon (*Oncorhynchus kisutch*)
  - King/Chinook salmon (*Oncorhynchus tshawytscha*)
  - Rainbow trout (*Oncorhynchus mykiss*)
  - Brown trout (*Salmo trutta*)
- Seaweed:
  - *Gracilaria gracilis*

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;
- Rafts for bivalve culture, comprising of a floating top structure moored to the seabed from which mussel ropes are suspended;
- Cages for finfish production, constructed of circular flexible high density polyethylene with multi-mooring systems; and
- Barrel culture for abalone, which can be deployed from rafts and longlines.

Table below shows summarises the Saldanha Bay ADZ areas, species and methods:

---

<b>ADZ Precinct</b>	<b>Recommended species</b> (*individual species as per list provided above)	<b>Recommended Production Method</b>
Small Bay	Currently cultivated bivalve species* Indigenous shellfish species not currently cultivated* Seaweed*	Rafts/longlines
Big bay-North	Currently cultivated bivalve species* Indigenous shellfish species not currently cultivated* Seaweed*	Rafts/longlines
	Indigenous finfish species* Alien finfish*	Floating cages (depths of more than 13m)
Outer Bay - North	Mediterranean mussel ( <i>Mytilus galloprovincialis</i> ) Black mussel ( <i>Choromytilus meridionalis</i> )	Sub-surface longlines
	Indigenous finfish species* Alien finfish species*	Floating cages
Outer Bay - South	Mediterranean mussel ( <i>Mytilus galloprovincialis</i> ) Black mussel ( <i>Choromytilus meridionalis</i> )	Sub-surface longlines
	Indigenous finfish species* Alien finfish species*	Floating cages

**(c) Extent of identified post-mitigation ADZ areas for bivalves and fish (ha)**

<b>Area</b>	<b>Total ADZ Area</b>	<b>Bivalves</b>	<b>Fish</b>
Small Bay	163	163	-
Big Bay North	409	367	42
Outer Bay North	216	76	140
Outer Bay South	96	-	96
<b>Total</b>	<b>884</b>	<b>606</b>	<b>278</b>

**(d) Production Volumes**



- **Bivalve Production**

Based on calculations of the ecological carrying capacity of Saldanha Bay, the ADZ could support total aquaculture bivalve production of up to 27 597 tpa ungraded / 15 203 tpa graded production.

- **Finfish Production**

Based on estimated production of nutrients from fish farming, finfish production should be limited to 5 000 tpa. Assuming an average fish farming density of 40 t/ha, the recommended ADZ area could accommodate up to 10 000 tpa finfish production. However, 5 000 tpa will only be exceeded if deemed acceptable based on stringent environmental monitoring.

**(e) 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);
- 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.

**(f) 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:**

- 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 Competent Authority prior to commencement of the activity by the individual operators;

- 2) authorisation of currently allocated and farmed areas within the ADZ, since these areas are already existing; and
- 3) authorisation of the following areas, which formed part of the application for environmental authorisation. The reason for not authorising them is because separate environmental authorisations have been issued to other aquaculture operators for the same areas:
- a) Southern Cross Salmon Farming (Pty) Ltd application located within a recommended ADZ area within Outer Bay South area (10 ha) and Outer Bay North area (20 ha) with the following coordinates and DEA Reference number 14/12/16/3/3/1/1728/1:

Point- Outer Bay South (10 ha)	Latitude	Longitude
SC-E	33° 4'34.80"S	17°57'45.70"E
SC-F'	33° 4'34.83"S	17°57'51.66"E
SC-G'	33° 4'42.36"S	17°57'51.66"E
SC-H'	33° 4'41.46"S	17°57'45.63"E

Point- Outer Bay North (20ha)	Latitude	Longitude
SC-A	33° 1'55.80"S	17°56'50.80"E
SC-B	33° 1'55.90"S	17°57'13.13"E
SC-C	33° 2'8.20"S	17°57'12.90"E
SC-D	33° 2'8.00"S	17°56'50.70"E

- b) Molapong Aquaculture (Pty) Ltd application located within a recommended ADZ area within Big Bay North area (approximately 40ha) and a site near Jutten Island (to be expanded from 1 ha to 15ha) with following the coordinates and DEA reference number 14/12/16/3/3/1/1728/2:

Sea area 1- Big Bay (40 ha)		
Point-	Latitude	Longitude
J	33° 02' 17.2"S	18°00' 04.3"E
K	33° 02' 13.0"S	18°00' 24.7"E
L	33° 02' 35.3"S	18°00' 33.6"E
M	33° 02' 39.7"S	18°00' 13.0"E
Sea Area 3- Near Jutten Island (to be expanded from 1 ha to 15ha)		
Point-	Latitude	Longitude
N	33° 04' 23.9"S	17°57' 24.5"E
G	33° 04' 40.0"S	17°57' 36.1"E
P	33° 04' 23.9"S	17°57' 36.1"E
Q	33° 04' 40.1"S	17°57' 24.5"E

M-J

## Conditions of this Environmental Authorisation

### Scope of authorisation

1. The post-mitigation scenario for the construction of the Sea-Based Aquaculture Development Zone in Saldanha Bay within West Coast District Municipality in the Western 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.

### **Notification of authorisation and right to appeal**

9. 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.
10. The notification referred to must –
  - 10.1. specify the date on which the authorisation was issued;
  - 10.2. inform the interested and affected party of the appeal procedure provided for in the National Appeal Regulations, 2014;
  - 10.3. advise the interested and affected party that a copy of the authorisation will be furnished on request; and
  - 10.4. give the reasons of the competent authority for the decision.

### **Commencement of the activity**

11. 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**

12. 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 12 below) for endorsement and to the Department for record keeping purposes, before commencement of operations by the individual operator.

### **ADZ Management**

13. To ensure appropriate ADZ management, two management bodies must be established by the holder of the authorisation prior to commencement of the activity.
  - 13.1. An ADZ Management Committee (AMC), comprising of, but not limited to, the Department of Agriculture, Forestry and Fisheries (DAFF), the Department of Environmental Affairs (DEA) (*Oceans and Coasts / Biodiversity Branches*), DEA (Integrated Environmental Authorisations), DEA Compliance and Monitoring, the Western Cape Department of Environmental Affairs and Development Planning (DEA&DP) and the Transnet National Ports Authority (TNPA), to fulfil a coordinating and supervising role and ensure compliance with the EMPr throughout all phases of aquaculture farming in the ADZ ; and
  - 13.2. A Consultative Forum that includes other relevant government departments, authorities and relevant local / public interest organisations, to review environmental monitoring data, advise on ADZ management and make recommendations to the AMC. The Consultative Forum will therefore feed into the AMC through the outputs (recommendations and advice) that it provides to the AMC for consideration.
14. Upon establishment of the Consultative Forum, a notice must be published in a local newspaper announcing the inception 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**

15. The function of the AMC is to oversee, facilitate, manage and monitor aquaculture operations in the ADZ. DAFF, 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:
  16. *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.*
  17. The AMC must meet before the commencement of construction activities to appoint a Chairperson 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 Chairperson must be an independent person, with experience in the environmental management and marine aquaculture field and/ or industry.
19. Key functions of the AMC are to:
  - 19.1. Monitor aquaculture operators' compliance with the EMPr and ADZ EA conditions;
  - 19.2. Oversee environmental monitoring related to ADZ aquaculture activities in Saldanha Bay;
  - 19.3. Monitor production volumes in the ADZ;
  - 19.4. Make decisions based on the outcomes of environmental monitoring, which could lead to the amendment of operations within the authorised ADZ;
  - 19.5. Make recommendations for improvements and amendments to the DAFFs overarching approved EMPr when required;
  - 19.6. Settle disputes regarding the interpretation of requirements in the EMPr and EA;
  - 19.7. Consider the advice, recommendations and inputs of the Consultative Forum with regards to environmental monitoring within Saldanha Bay and the management of the ADZ.
  - 19.8. Receive and manage stakeholder comments;
  - 19.9. Record and, if necessary, coordinate a response to environmental incidents related to aquaculture operations;
  - 19.10. Review and comment on new / expanded aquaculture farm proposals within the approved ADZ; and
  - 19.11. Provide updated information to the Consultative Forum for distribution to the public (e.g. farm coordinates, water quality information, and notification of new aquaculture operations).
20. The AMC organisational structure must make provision for various functions, including:
  - 20.1. Chairperson: Calls and chairs meetings of the AMC;
  - 20.2. Secretariat: Fulfils secretariat functions, including:
    - 20.2.1. Maintenance of member details and arrangement of meetings;
    - 20.2.2. Compiling and distribution of meeting notes;
    - 20.2.3. Distribution of communication to AMC members, Consultative Forum and aquaculture farmers in the ADZ;
    - 20.2.4. Maintenance of a database of registered (public) stakeholders;
    - 20.2.5. Drafting and distribution of regular (at least quarterly) AMZ Reports to all Consultative Forum members and registered stakeholders on activities in the ADZ;

- 20.2.6. Administration of and responding to stakeholder comments on aquaculture activities in the ADZ; and
- 20.2.7. Reporting on stakeholder aspects at AMC meetings
- 20.3. Environmental Representative: Fulfils environmental control functions, including:
  - 20.3.1. 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;
  - 20.3.2. Receiving and reviewing monthly Farm Monitoring Reports;
  - 20.3.3. Receiving and reviewing environmental sampling, monitoring and audit results;
  - 20.3.4. Notifying the Chairperson in the event any aspects require immediate attention of the AMC;
  - 20.3.5. Notifying the Secretariat in the event any aspects require immediate attention of other aquaculture farmers in the ADZ; and
  - 20.3.6. Reporting on environmental aspects at AMC meetings.

### **Consultative Forum**

- 21. 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:
  - 21.1. Government and authorities: South African National Parks (SANParks); Western Cape Department of Agriculture (DoA); CapeNature; and Saldanha Bay Municipality;
  - 21.2. Aquaculture industry;
  - 21.3. Local industry association representing operators in the ADZ;
  - 21.4. Farmers operating in the ADZ;
  - 21.5. Other organisations: South African National Defence Force (SANDF) / South African Navy (SAN); Saldanha Bay Water Quality Forum Trust (SBWQFT); and Representatives of the local fishing industry.
- 22. Forum members will join on a voluntary basis and at no costs to DAFF.
- 23. Key functions of the Consultative Forum are to:
  - 23.1. Review environmental monitoring data related to aquaculture in Saldanha Bay;
  - 23.2. Make recommendations to the AMC based on the outcomes of environmental monitoring; and
  - 23.3. 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**

24. The EMPr must be updated where the findings of the environmental audit reports, contemplated in Condition 29 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.
25. The updated EMPr must contain recommendations to rectify the shortcomings identified in the environmental audit report.
26. 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.
27. 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.
28. 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**

29. The holder of the authorisation must appoint a suitably qualified and experienced independent Environmental Control Officer (ECO) for the construction 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.
  - 29.1. The ECO must be appointed before commencement of any authorised activities.
  - 29.2. Once appointed, the name and contact details of the ECO must be submitted to the *Director: Compliance Monitoring* of the Department.
  - 29.3. The ECO must keep record of all activities on site, problems identified, transgressions noted and a schedule of tasks undertaken by the ECO.



- 29.4. All monitoring studies conducted/commissioned by the Department of Agriculture, Forestry and Fisheries within Saldanha Bay must be reviewed by an independent specialist to verify findings before the report is submitted to the AMC.
- 29.5. Findings of the daily monitoring by the ECO must be summarised into a monthly report which must be presented by the ECO to the AMC at the bi-monthly meetings.
- 29.6. The ECO must also submit a detailed 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**

30. 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](mailto:Directorcompliance@environment.gov.za).
31. 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](mailto:Directorcompliance@environment.gov.za).
32. 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.
33. 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.
34. 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 of the audit in terms of compliance with the environmental authorisation conditions as well as the requirements of the approved EMPr.
35. 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**

36. 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**

37. 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**

38. 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**

39. 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).
40. No new mooring blocks must be placed within a 200m of the Merestein site (33.087355°S, 17.955044°E – WGS84, Decimal Degrees)
41. 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.
42. 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.

43. The location and nature of any identified maritime and underwater cultural heritage resource must be provided to a maritime archaeologist and to the South African Heritage Resources Agency for inclusion on their Shipwreck Database.
44. Should evidence of archaeological material be identified, the Maritime and Underwater Cultural Heritage Unit at SAHRA must be notified and an archaeologist must assess the findings
45. Should any wreck site, or part thereof, or object or artefacts from a wreck site be disturbed during operations, a permit from SAHRA must be acquired prior to continuing with activities.
46. 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.
47. 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.
48. 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 Saldanha Aquaculture Development Zone.

#### **ADZ phasing-in of aquaculture expansion**

49. The holder of the authorisation must limit annual ungraded **shellfish** production to 10 000 tpa for the first two years, increasing thereafter annually by up to 5 000 tpa, only if monitoring results indicate that environment health has been maintained and impacts remain manageable, to a maximum of 27 600 tpa ungraded production.
50. The holder of the authorisation must implement a phased approach for the development of **finfish** cage culture in the ADZ by:
  - 50.1. Limiting annual increases in finfish production to no more than 1 000 tpa to a maximum of 5 000 tpa achieved over a 5 year period, only if monitoring results indicate that environment health has been maintained and impacts remain manageable.
  - 50.2. Splitting the recommended annual increase in production between Big Bay and Outer Bay.

51. Finfish production beyond 5 000 tpa, to a maximum of 10 000 tpa, must only be pursued if:
  - 51.1. Ecological monitoring indicates that production of 5 000 tpa has no adverse ecological effects, and there is adequate information to permit further expansion in fish production;
  - 51.2. Intensified monitoring is applied (a detailed monitoring plan to be implemented) and that expanded production can only occur by following a more precautionary ramp up approach (where the expanded production is phased in over at least a five-year period, provided ongoing monitoring has indicated that resource quality objectives are maintained); and
  - 51.3. In the ramp up period, and for any production beyond five years, a further period of strict monitoring and environmental quality standards is introduced. Should standards or precautionary limits be approached or exceeded, sampling and monitoring plans must include a response procedure that leads to appropriate downward adjustments of fish production.
52. "These detailed monitoring plans, for intensified monitoring in the expanded finfish production scenario (i.e. finfish production beyond 5 000 tpa, to a maximum of 10 000 tpa), must be submitted to the Department for approval, prior to this expansion in finfish production commencing".
53. 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.
54. Environmental monitoring must be implemented to inform management and expansion of operations as part of the phased approach

## General

55. A copy of this environmental authorisation, the audit and compliance monitoring reports, and the approved EMP, must be made available for inspection and copying-
  - 55.1. at the site of the authorised activity;
  - 55.2. to anyone on request; and
  - 55.3. where the holder of the environmental authorisation has a website, on such publicly accessible website.
56. 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: 08/01/2018

  
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 BAR dated August 2017;
- b) The comments received from DEA Ocean and Coast, SANParks, West Coast District Municipality, Department of Environmental Affairs and Development Planning, Saldanha Bay Local Municipality, Cape Nature and Interested and Affected Parties as included in the BAR dated August 2017;
- c) Mitigation measures as proposed in the BAR dated August 2017 and the EMPr;
- d) The information contained in the specialist studies contained on 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) The need for the project stems from the requirement to develop and facilitate aquaculture (the sea-based or land-based rearing of aquatic animals or the cultivation of aquatic plants for food) in South Africa to supply food, create jobs in marginalised coastal communities and contribute to the national income.
- 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 Saldanha 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) The need and motivation for an ADZ approach was satisfactorily addressed:
- i. Key challenges identified in realising the full potential of aquaculture in Saldanha Bay are the lack of an enabling regulatory environment, short duration of leases and relatively high start-up costs for operators, including the need to conduct EIAs. The Operation Phakisa Aquaculture Lab has prioritised this matter in order to attract investment into aquaculture in Saldanha Bay;
  - ii. Existing projects are not able to expand and new projects are not able to produce more than 50 tons per annum without Environmental Authorisation. The undertaking of a bay-wide EIA for aquaculture in Saldanha Bay is considered critical to create an enabling environment for aquaculture in Saldanha Bay and to address cumulative impacts of aquaculture on the bay. It also reduces the risk and cost for individual operators and contributes to the provision of long-term leases in the bay;
  - iii. An ADZ approach is further considered critical to achieve an integrated, holistic and sustainable management of aquaculture in Saldanha Bay. Sustainable aquaculture is achieved when the environmental, social and economic aspects of a project are adequately addressed and integrated;
  - iv. Aquaculture requires good water quality and any negative impacts on the environment of Saldanha Bay will directly affect the growth of produce and underlying viability of the operations. Water quality therefore needs to be carefully monitored and managed. In Saldanha Bay, DAFF is conducting ongoing environmental monitoring to assess the impact of the mussel and oyster rafts on the seabed and the food safety of the mussels and oysters. Mussels are extensively used as biological indicators of pollution, as they accumulate contaminants in their tissue;
  - v. Shellfish and seaweed culture do not require the addition of feed for production, but can lead to depletion of natural nutrients and primary production. Finfish culture requires the use of feed which, if managed incorrectly, can cause eutrophication of a water body and algal blooms, with associated negative impacts on the cage culture of finfish. This can be mitigated by selecting sites with appropriate flushing and depth and applying the principle of Integrated Multi-Trophic Aquaculture (IMTA), which aims to recapture portions of nutrient waste lost from fish species as nutritional inputs for shellfish or seaweed culture. The simultaneous culture of various species in the bay, specifically finfish, shellfish and seaweed, can thus positively impact one another and reduce environmental impacts. The DAFF therefore supports the use of multiple species in Saldanha Bay, which can be more effectively achieved and managed in an ADZ.

The DAFF also has a vested interest in ensuring that adequate monitoring is implemented on a continuous basis to ensure that:

- (aa) External pollution does not negatively impact the aquaculture within the bay;
- (bb) The carrying capacity of the bay as a whole is not exceeded and that different species cultures do not negatively impact each other;
- (cc) The community in the area receives the maximum socio-economic benefit of the development; and
- (dd) The regulatory environment creates an enabling environment for current and new investment into aquaculture in the bay.

- f) The post-mitigation scenario eliminated a number of areas which were initially identified for inclusion in the ADZ. These areas have been avoided in the mitigation of marine ecology, socio-economic, visual, tourism and heritage impacts. These areas included the following:
  - vi. Big Bay North: 100 m wide buffer around reefs and blinders and 1 km buffer from residents along the eastern shoreline (to mitigate marine ecology and visual impacts). This reduced the precinct by 43%;
  - vii. Big Bay South: entire precinct (to mitigate marine ecology and socio-economic impacts). This reduced the precinct by 100% (i.e. it will not be developed for aquaculture);
  - viii. Outer Bay North: 1 000 m buffer for finfish and 500 m buffer for shellfish around the Malgas Island Marine Protected Area (MPA) and 100 m wide buffer around reefs and blinders (to mitigate marine ecology impacts). This reduced the precinct by 40%; and
  - ix. Outer Bay South: 250 m wide buffer around Jutten Island MPA (aligned with the island) and the entire channel between Jutten Island and Donkergat Peninsula (to mitigate marine ecology, socio-economic and heritage impacts). This reduced the precinct by 73%.
- g) The post-mitigation scenario has thus been reduced by 70% from 1 404 ha in the pre-mitigation scenario to 420 ha in the approved post mitigation scenario. The total ADZ, including areas for which leases are currently held (not all of which are farmed) would be 884 ha in the post-mitigation scenario. This equates to approximately 10% of Saldanha Bay (Small, Big and Outer Bay).
- h) The authorisation provides for a precautionary approach to fish farming in Saldanha Bay through the implementation of a phased approach for expansion of aquaculture in the ADZ (as indicated the conditions above). Development of the ADZ will be undertaken in a phased approach, so that cumulative impacts can be detected as they arise, and adaptive management implemented concurrently. Only once environmental monitoring has revealed acceptable impacts as defined by the environmental quality objectives, indicators and performance measures, will further expansion in terms of fish production quantities be considered.



- i) 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.
- j) The BAR dated August 2017 identified all relevant environmental legislation and guidelines that have been considered in the preparation of the BAR dated August 2017.
- k) The methodology used in assessing the potential impacts identified in the BAR dated August 2017 and the specialist studies has been adequately indicated.
- l) A sufficient public participation process was undertaken and the applicant has satisfied the minimum requirements as prescribed in the EIA Regulations, 2014 for public involvement.

### **3. Findings**

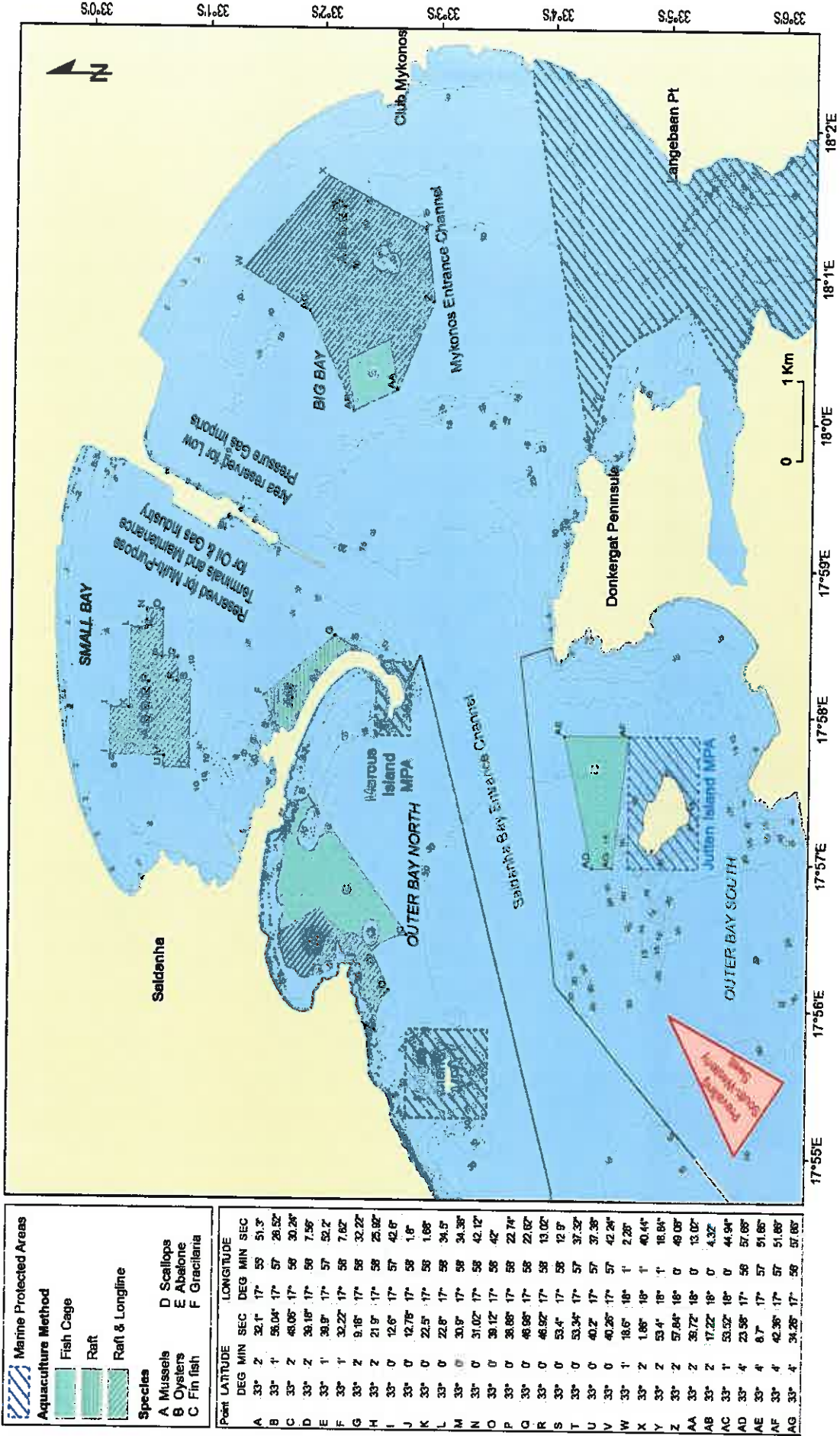
After consideration of the information and factors listed above, the Department made the following findings -

- a) The identification and assessment of impacts are detailed in the BAR dated August 2017 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 BAR dated August 2017 is accurate and credible.
- e) EMPr measures for the pre-construction, construction and rehabilitation phases of the development were proposed and included in the 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.

# Annexure 2: Locality Plan

S



Maine Protected Areas	
	Reserved for Multi-Purpose Terminals and Maintenance for Oil & Gas Industry
	Area reserved for Low Pressure Gas Imports

Aquaculture Method	
	Fish Cages
	Raft
	Raft & Longline

Species	
A	Mussels
B	Oysters
C	Fin fish
D	Scallops
E	Abalone
F	Gracilaria

Point	LATITUDE		LONGITUDE	
	DEG	MIN SEC	DEG	MIN SEC
A	33°	2'	32.1'	17° 55' 51.3"
B	33°	1'	56.04'	17° 57' 28.52"
C	33°	2'	43.05'	17° 58' 30.26"
D	33°	2'	38.16'	17° 58' 7.56"
E	33°	1'	38.9'	17° 57' 52.2"
F	33°	1'	32.22'	17° 58' 7.62"
G	33°	2'	9.16'	17° 58' 32.22"
H	33°	2'	21.9'	17° 58' 25.92"
I	33°	0'	12.6'	17° 57' 42.6"
J	33°	0'	12.75'	17° 58' 1.8"
K	33°	0'	22.5'	17° 58' 1.68"
L	33°	0'	22.8'	17° 58' 34.8"
M	33°	0'	30.9'	17° 58' 34.38"
N	33°	0'	31.02'	17° 58' 42.12"
O	33°	0'	38.88'	17° 58' 22.74"
P	33°	0'	46.88'	17° 58' 22.62"
Q	33°	0'	53.4'	17° 58' 12.8"
R	33°	0'	53.34'	17° 57' 37.32"
S	33°	0'	40.2'	17° 57' 37.35"
T	33°	0'	40.26'	17° 57' 42.24"
U	33°	1'	18.6'	18° 1' 2.28"
V	33°	2'	53.4'	18° 1' 40.44"
W	33°	2'	57.84'	18° 0' 49.08"
X	33°	2'	36.72'	18° 0' 13.02"
Y	33°	1'	53.02'	18° 0' 44.94"
Z	33°	4'	23.58'	17° 58' 57.66"
AA	33°	4'	42.36'	17° 57' 51.66"
AB	33°	4'	34.26'	17° 58' 37.86"

*M.S*