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Department:
Forestry, Fisheries and the Environment
REPUBLIC OF SOUTH AFRICA

SALDANHA BAY AQUACULTURE DEVELOPMENT ZONE ENVIRONMENTAL CONTROL OFFICER SUMMARY REPORT 21



December 2023



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Report prepared for:

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Branch: Fisheries Management



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Department:
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REPUBLIC OF SOUTH AFRICA

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LIST OF ABBREVIATIONS

ADZ	Aquaculture Development Zone
AMC	Aquaculture Management Committee
Anchor	Anchor Research & Monitoring (Pty) Ltd
AOT	African Olive Trading
BB	Big Bay
BOM	Blue Ocean Mussels
BSASA	Bivalve Association of South Africa
C	Compliant
CF	Consultative Forum
DFFE	Department of Forestry Fisheries and the Environment
EA	Environmental Authorization
ECO	Environmental Control Officer
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan (for individual farms)
EMPr	Environmental Management Programme
ETP	Endangered, Threatened and Protected species
FMR	Farm Monitoring Report
MLRF	Marine Living Resources Fund
MSC	Marine Stewardship Council
NC	Non-compliant
OBN	Outer Bay North
OBS	Outer Bay South
PC	Partial Compliance
SAMSA	South African Maritime Safety Authority
SB	Small Bay
SBM	Saldanha Bay Municipality
SBOC	Saldanha Bay Oyster Company
TNPA	Transnet National Ports Authority

PROJECT TEAM

DETAILS OF THE ENVIRONMENTAL CONTROL OFFICER

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DETAILS OF THE INDEPENDENCE IN TERMS OF CHAPTER 5 OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT OF 1998

Box 1: Declaration of Independence of Environmental Control Officer

I, Julia Ndou hereby declare that I have no conflicts of interest related to the work of this report. Specifically, I declare that I have no personal financial interests in the property and/or development being assessed in this report, and that I have no personal or financial connections to the relevant property owners, developers, planners, financiers, or consultants of the development.



12 January 2024

Box 2: Declaration of Independence of Reviewer

I, Amy Grace Wright hereby declare that I have no conflicts of interest related to the work of this report. Specifically, I declare that I have no personal financial interests in the property and/or development being assessed in this report, and that I have no personal or financial connections to the relevant property owners, developers, planners, financiers, or consultants of the development.



12 January 2024

COMPLIANCE WITH REGULATION 34 OF THE EIA REGULATIONS, 2014

The National Environmental Management Act (NEMA, Act 107 of 1998) provides for co-operative environmental governance of South Africa. As promulgated under NEMA (sections 24(5) and 44), the Environmental Impact Assessment (EIA) Regulations, 2014 (as amended) are the key regulatory instrument to manage and mitigate environmental impacts caused by any activities or new developments with the potential to affect the environment. Anchor Research and Monitoring carries out audits in terms of Regulation 34 of the EIA Regulations (as amended) and the following should be noted:

- Anchor Research and Monitoring (Anchor) follows the prescribed format for audit reports listed under Regulation 34 of the amended EIA Regulations (Table 1.1).
- Anchor will report on compliance achieved and adequacy of the Environmental Management Programme (EMPr).
- Anchor does not assume the responsibility of ensuring compliance to all other prescriptions listed under Regulation 34 of the EIA Regulations (such as seeking amendment to the EMPr or associated licences/permits). Ensuring compliance is the obligation of the proponent.

Table 1.1.. Legal requirements for Audit Reports per Appendix 7, GN. 1224 of 2020.

Content of an Environmental Audit report	Section of this report
Details and expertise of independent ECO and author of this audit report.	Project team
Declaration that the independent auditor is independent.	Project team
Scope and the purpose of environmental audit report.	Section 1.1
Methodology adopted in preparing the environmental audit report.	Section 3.1
Evaluation of the ability of the EMPr, and in the case of a closure activity, the closure plan to sufficiently: 1. Provide for continued avoidance, management, and mitigation of environmental impacts and at closure. 2. Ensure compliance with EA, EMPr and, in the case of a closure activity, the closure plan.	Section 5.2
Description of any assumptions, uncertainties, or gaps in knowledge.	Section 1.2
Description of any consultation process undertaken for this audit report.	Section 6.1
A summary and copies of comments received during any consultation process.	Section 6.2 Communications register
Any other information requested by the competent authority.	Section 6.2

I INTRODUCTION

I.1 SCOPE AND PURPOSE

This Environmental Control Officer (ECO) summary report provides feedback on Saldanha Bay Aquaculture Development Zone (ADZ) compliance with the Environmental Authorisation (EA) and approved Environmental Management Programme (EMPr). This summary report is distributed to Operators, members of the Consultative Forum (CF), members of the ADZ Management Committee (AMC) and the Department of Forestry, Fisheries, and the Environment (DFFE): Compliance Monitoring Directorate. The two primary purposes of this report include:

- Ensuring stakeholders are updated on ADZ activities; and,
- Highlighting areas for improvement in ADZ activities to allow for adaptive management.

This document is intended to highlight significant issues and summarised monthly audits of the ADZ and individual farms (this report is for the December audit period). The summaries are drawn from the monthly ECO compliance and site inspection reports which are issued to the AMC and individual farms. The monthly ECO compliance and site inspection reports are retained by the DFFE, ECO and AMC for reference as they contain proprietary information.

I.2 ASSUMPTIONS AND LIMITATIONS OF THE AUDIT

The audit findings are based on information relayed in documentation to the ADZ ECO by Operators, email correspondence, in-person interviews, as well as observations made during physical site inspections, at a specific point in time. Although the site inspection can reveal evidence of activities carried out during the month for which the audit covers, it cannot fully show the auditor what activities have been carried out on site. The auditor, therefore, must rely on observations made on the day of the audit as well as the information provided by the Operators, proponent, and other relevant stakeholders in order to make conclusions regarding compliance during the preceding month.

It should be noted that the role of the ADZ ECO is to independently monitor compliance, to implement the Audit Standard, as well as to provide input and guidance to the DFFE Project Management Team on a strategic level. Due to the independent nature of the ADZ ECO role, the ECO appointment is not to enforce compliance but to monitor. Compliance with the provisions contained in the EMPr, EA, Permit or any condition imposed by the environmental approvals shall become the responsibility of DFFE. The following Branches and Directorates of DFFE that are considered responsible for compliance for this project include DFFE: Chief Directorate Aquaculture and Economic Development (now Chief Directorate: Aquaculture Development and Freshwater Fisheries), DFFE: Chief Directorate Sector Compliance, and Chief Directorate Sector Enforcement under Branch: Regulatory Compliance and Sector Monitoring.

2 THE SALDANHA BAY AQUACULTURE DEVELOPMENT ZONE

2.1 INTRODUCTION AND BACKGROUND

Mussel farming has occurred in Saldanha Bay since 1981 and was subsequently followed by oyster farming in the early 2000s. As the development and expansion of sea-based aquaculture activities comprise a number of Listing Notices in terms of the National Environmental Management Act (NEMA) (No. 107 of 1998, as amended), these activities require that an Environmental Impact Assessment (EIA) process be undertaken to obtain Environmental Authorisation (EA) from the Department of Forestry, Fisheries and the Environment (DFFE). This process can be arduous and costly, which presents a barrier to entry. Therefore, to facilitate investment and development of additional aquaculture in the Bay, the then Department of Agriculture, Forestry and Fisheries (DAFF) undertook the establishment of a sea-based Aquaculture Development Zone (ADZ) in Saldanha Bay.

The Branch Fisheries Management (now DFFE: Fisheries Management) conducted an EIA and obtained an EA for the ADZ in Saldanha Bay on 8 January 2018, which (after appeals) was upheld on 7 June 2018. The DFFE: Fisheries Management must appoint an independent Environmental Control Officer (ECO) during the construction and operational phases of the ADZ, in terms of condition 29 of the EA and condition 1 of Table 4-2 of the EMPr (see Table 2.1 for ADZ ECO appointments to date). The role of the ADZ ECO is to monitor compliance with stipulations in the EA and EMPr for the construction and operational phases of the ADZ.

Table 2.1. ADZ ECO appointments to date.

Company name	ECO	Period
Ecosense CC	Errol Cerff	September 2018 to August 2019
SRK Consulting (South Africa) (Pty) Ltd.	Kelly Armstrong	September 2019 to February 2020
Errol Cerff	Errol Cerff	March 2020 to September 2020
Errol Cerff	Errol Cerff	October 2020 to September 2021
Errol Cerff	Errol Cerff	October 2021 to March 2022
Anchor Research & Monitoring (ARM)	Jen Keightley	April 2022 to May 2023
	Julia Ndou	June 2023 to March 2025

The EA and EMPr have undergone several amendments since the inception of the ADZ, which have been incorporated into the ECO audit scope. The audit scope includes the original EA and its amendments and the most recent amendment of the EMPr. The original EA was issued on 8 January 2018 and amendments to the EA were issued on 10 July 2019 and 14 September 2020 (DEA ref. 14/12/16/3/3/1/1728, 14/12/16/3/3/1/1728/AMI and 14/12/16/3/3/1/1728/AM2, respectively). The original approved EMPr is dated August 2017 and has been amended three times in May 2020, June 2021, and June 2022. While the next amendment of the EMPr was scheduled for June 2023, no changes to the EMPr were recommended by the ECO or the annual external auditors, and the EMPr will remain unchanged for this year (2023). The next review of the ADZ EMPr is scheduled for June 2024.

The Marine Living Resources Fund (MLRF) under the auspices of DFFE: Branch Fisheries Management has appointed Anchor Research & Monitoring (Pty) Ltd (Anchor) as ECO for the Saldanha Bay ADZ for a period of three (3) years. This document is intended to highlight significant issues only and summarised monthly audits of the ADZ and individual farms.

2.2 SITE AND PROJECT DESCRIPTION

Saldanha Bay is located on the West Coast, approximately 120 km north of Cape Town and supports many economic activities. The Port of Saldanha is South Africa's premier iron ore export port and supports a number of industrial operations in the area. An aquaculture industry predominantly reliant on bivalves was established in Saldanha Bay prior to the establishment of the ADZ. Saldanha Bay is considered an historically important area for fishing activity and multiple fish processing plants are located therein. It is also a tourist destination and caters to various water-based tourism.

When the ADZ was originally proposed the Basic Assessment identified issues of concern including changes to the water quality, visual landscape, and productivity of the Saldanha Bay and Langebaan Lagoon environments. Measures to mitigate such impacts were detailed in the Environmental Management Programme (EMPr) and were made mandatory in the Environmental Authorisation (EA). A phased approach to production was adopted to monitor the impacts of expanding aquaculture before production levels were increased. The phased approach also allowed time to determine whether the mitigation measures had the desired effect of limiting impacts and only if mitigation measures proved effective could production be increased.

The Saldanha Bay ADZ comprises 4 precincts, namely Small Bay (SB), Big Bay (BB), Outer Bay North (OBN), and Outer Bay South (OBS) (Figure 2.1). The BA Report summarised the scope for expansion in the ADZ and comprised a mix of finfish and bivalve farms (Table 2.2). Details of each existing lease are depicted in Figure 2.2 and Figure 2.3. Note that there are two lease areas in OBN that are unallocated and have been advertised for lease applications by Transnet Ports Authority (TNPA). 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.
- Vessel trips between the shore and aquaculture areas.

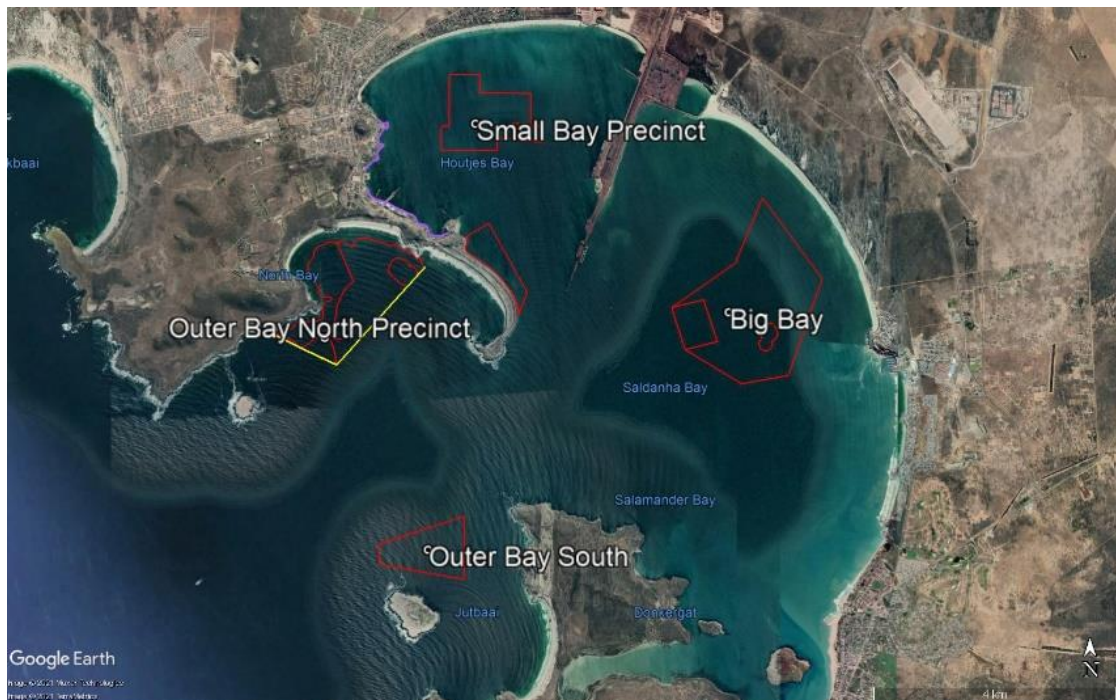


Figure 2.1. Saldanha Bay ADZ precincts.

Table 2.2. ADZ ECO appointments to date.

Precinct	ADZ Area (ha)	Area suitable for bivalve cultivation (ha)	Area suitable for fish and bivalve cultivation (ha)
Small Bay (SB)	163	163	-
Big Bay (BB)	409	367	42
Outer Bay North (OBN)	216	76	140
Outer Bay South (OBS)	96	-	96
Total	884	606	278



Figure 2.2. (Left) Bivalve culture in Small Bay (SB) and (right) mixed bivalve and finfish culture in Big Bay (BB).

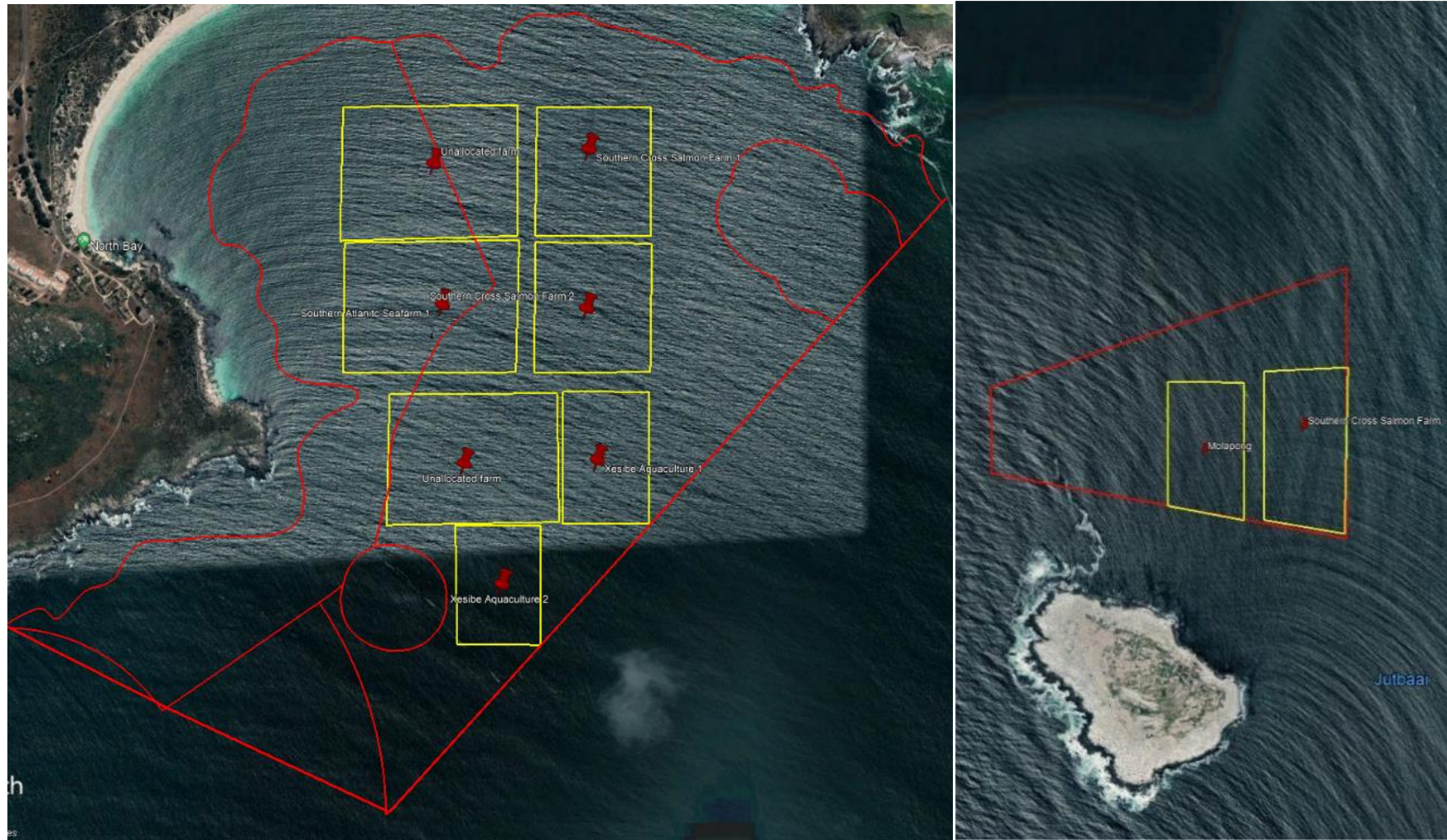


Figure 2.3. (Left) Bivalve culture in Outer Bay North (OBN) and (right) finfish culture in Outer Bay South (OBS).

2.3 OPERATORS IN THE ADZ

An essential aspect to assessing actual impact and possibility of expanding operations relies on accurate production data received from each farm. Farms submit production figures in the form of a monthly Farm Monitoring Report (FMR) to the ADZ ECO and DFFE. As such all farms are required to submit FMRs in terms of the aquaculture permit. Since this is essential to the monitoring of impacts, tracking compliance with this requirement will form part of the ADZ ECO duties even though this is not specified in the EMP. A list of Operators in the ADZ as of April 2023 (beginning of the 2nd annual cycle in the ECO contract) is presented in Table 2.3.

Table 2.3. Operators in the Saldanha Bay ADZ.

Farm name	Species	Precinct	Right No. MAQUA
African Olive Trading 232 (Pty) Ltd	Mussels	SB	1027
Aqua Foods SA (Pty) Ltd	Mussels/ oysters	SB & BB	1029
Blue Lagoon Products (Pty) Ltd	Oysters	BB	1057
Blue Ocean Mussels (Pty) Ltd	Mussels/ Oysters	SB	11828 & 0004
Blue Sapphire Pearls CC	Mussels / Oysters	SB	0006
Imbaza Mussels (Pty) Ltd	Oysters	SB	0019
K2019005713 (Pty) Ltd	Mussels	BB	1053
K2019005725 (Pty) Ltd	Mussels	BB	1052
Lagoon Aqua	Oysters	BB	1057
Madima General Agriculture Trading (Pty) Ltd	Mussels	BB	1048
Molapong Aquaculture (Pty) Ltd	Salmon	BB	1033
Mika Growers (Pty) Ltd	Mussels	BB	1047
MMMAgri Consult (Pty) Ltd	Mussels	BB	1045
Pluto Mussels and Trading (Pty) Ltd	Mussels	BB	1051
Requa Enterprises (Pty) Ltd	Mussels	OBN	1035
Saldanha Bay Oyster Company (Pty) Ltd	Oysters	BB	0012 & 0007
Salmar Trading (Pty) Ltd	Oysters	SB	1032
Simunye Mussels (Pty) Ltd	Mussels	BB	1047
Southern Atlantic Sea Farms (Pty) Ltd	Mussels	BB / OBN	1028
Southern Cross Salmon Farming (Pty) Ltd	Mussels	OBN	1037
Ulwazi Kukutya (Pty) Ltd	Mussels	BB	1050
West Coast Aquaculture (Pty) Ltd	Mussels/ oysters	SB & BB	0003
West Coast Oyster Growers CC	Oysters/ Mussels	SB & BB	0013
Xesibe Aquaculture Project (Pty) Ltd	Mussels	OBN	1046

3 ECO AUDITS

3.1 APPROACH AND METHODOLOGY

Monthly ECO audits comprise monthly site inspections using the approved checklist and audit standard; rotational compliance audits on individual farms using monthly Farm Monitoring Reports and supporting documentation; and ongoing regular audits of compliance of the ADZ administration as a whole. The monthly ECO audit cycle involves communication with Operators and the AMC as required as well as developing and distributing the following documents:

- Detailed monthly ADZ compliance reports issued to the AMC and Compliance Monitoring Directorate at DFFE.
- ECO site inspection report issued to the AMC.
- Summary report (this report) submitted to the CF, AMC, and Operators.

3.2 PROGRESS WITH PARTIAL OR NON-COMPLIANCES

During the December 2023 audit period, there were a total of four instances of partial compliance. Of the four partial compliances, three relate to demarcation of the ADZ, enforcing maintenance and operational guidelines, and monitoring the shoreline for aquaculture debris. The partial compliance from Ocean Grown Aquaculture was attributed to the incorrectly labelled and absence of unique identifiers on the end floats with corresponding numerical sequential order. These partial compliances are summarised below:

- The DFFE has no control over this, and it is the mandate of TNPA, who must be accurately demarcated with South African Maritime Safety Authority (SAMSA) approved marker buoys (EMPr table 5-1, condition 2). To identify the required marker buoys for the ADZ, an Aids to Navigation (AtoN) Plan was developed (final draft submitted on 27 November 2022). The workshop for stakeholder engagement on this Risk Assessment was held on the 11 - 12 October 2023. A Navigational Risk Assessment was conducted for Saldanha Bay, therefore, AtoN plan will be implemented in order to be rated compliant.
- Operators must remain compliant with maintenance and operational guidelines (EMPr table 5-1, condition 6). Progress has been made with farm maintenance plans and is discussed in detail under Section 3.3 of Anchor Report 2014/21_2b (ECO site inspection report).
- Managers of the ADZ should ensure that the shoreline of the Bay is monitored for aquaculture equipment washed ashore (EMPr table 7-1, condition 2). Progress has also been made with operators monitoring the shoreline and removing aquaculture debris, which is discussed in detail in Section 3.6 of Anchor Report 2014/21_2b. A Beach patrol was done in Big Bay on the 18 November 2023 where a few floats were found and tied together and only collected in December 2023. This data will be reported on the January 2024 audit report. Evidence of beach clean-ups of Outer Bay North is outstanding.
- Farm owners must ensure repairs of broken infrastructure are done and regular maintenance of their farms as a matter of utmost priority to ensure compliance with the

operational guidelines outlined in the EA and the Environmental Management Programme (EMPr).

3.3 ACTIVITIES IN THE ADZ — DECEMBER 2023

3.3.1 FARM INSPECTIONS

On 06 December 2023, the ECO conducted on-water inspections and corresponding interviews for two farms located in the SB precinct. These farms were Imbaza Mussels (IMB) and West Coast Oyster Growers (WCOG). The farms that were inspected, their location, the date of inspection and compliance with operational guidelines along a comment on the in-situ observations are provided in Table 3.1.

During the December 2023 audit, IMB was fully compliant (C) whilst WCOG was partially compliant (PC) with the operational guidelines. In general, there is relatively good farm maintenance in SB precinct as lines are taut, straight and suitably floated. This precinct is defined as a sheltered and semi-sheltered area due to historical Port developments in Saldanha Bay, with an enhanced clockwise circulation and increased current strength flowing alongside unnatural obstacles (i.e., enhanced boundary flow, for example alongside the ore terminal). Therefore, wave action or high swells are not too pronounced.

Table 3.1. Farms inspected during the December 2023 ECO site inspection and compliance feedback.

Farm name	Location	Species	Compliance status	Comment
Imbaza Mussels	Small Bay	Mussels	C	26 rafts with 800 droppers per raft are authorised in this farm. Currently, all 26 rafts have been installed. No litter, excess or loose equipment on rafts or barges. There were unique identifying markers on all infrastructure and corresponding sequential numbers on the rafts. There were no broken rafts. All rafts equally spaced, minimising the risk of collision due to strong winds. Harvesting, grading and reseeded mussels were already done during the site inspection. The barge was in good condition, nicely cleaned and driven to its own mooring.
West Coast Oyster Growers	Small Bay	Mussels/Oysters	PC	31 oyster, 8 mussel and 2 experimental seaweed lines are authorised in this farm. Currently, only 20 active oyster, 1 active mussel, 1 active seaweed, 21 dormant mussel lines have been installed. All lines were taut, straight and suitably floated. End floats and buoys were cleaned of biofouling. Mussel lines have black buoys and end floats whilst oyster lines have blue buoys and orange end floats. The end floats for the mussel lines was incorrectly labelled with West Coast Aquaculture's unique identifier "WCA". Additionally, the orange end floats were not marked with unique identifiers with corresponding numerical sequential order.

A summary update of the general condition of the farms observed during the December 2023 Audit:

- No litter, excess or loose equipment on rafts or barges.

- There were unique identifying markers on all infrastructure and corresponding sequential numbers on the rafts.
- The additional weight from biofouling on pontoon pipes is negligible and has not raised any concerns.
- All rafts equally spaced, minimising the risk of collision due to strong winds.
- The barge was in good condition, nicely cleaned and driven to its designated mooring.
- Most of the oyster and mussel infrastructure on the farm have been cleaned of biofouling.
- On a single occasion, the unique identifier on end floats for the mussel lines were incorrectly labelled.
- No unique identifiers on the end floats with corresponding numerical sequential order for oyster lines. This requires to be rectified as it is necessary for effective identification.
- No broken lines or rafts were observed floating in the water.

In conclusion, the condition of the farms is generally good and are compliant with most of the expected standards. Partial compliance was attributed to the incorrectly labelled and lack of unique identifiers on the end floats with corresponding numerical sequential order.

3.3.1 COMPLIANCE PHOTOGRAPHS

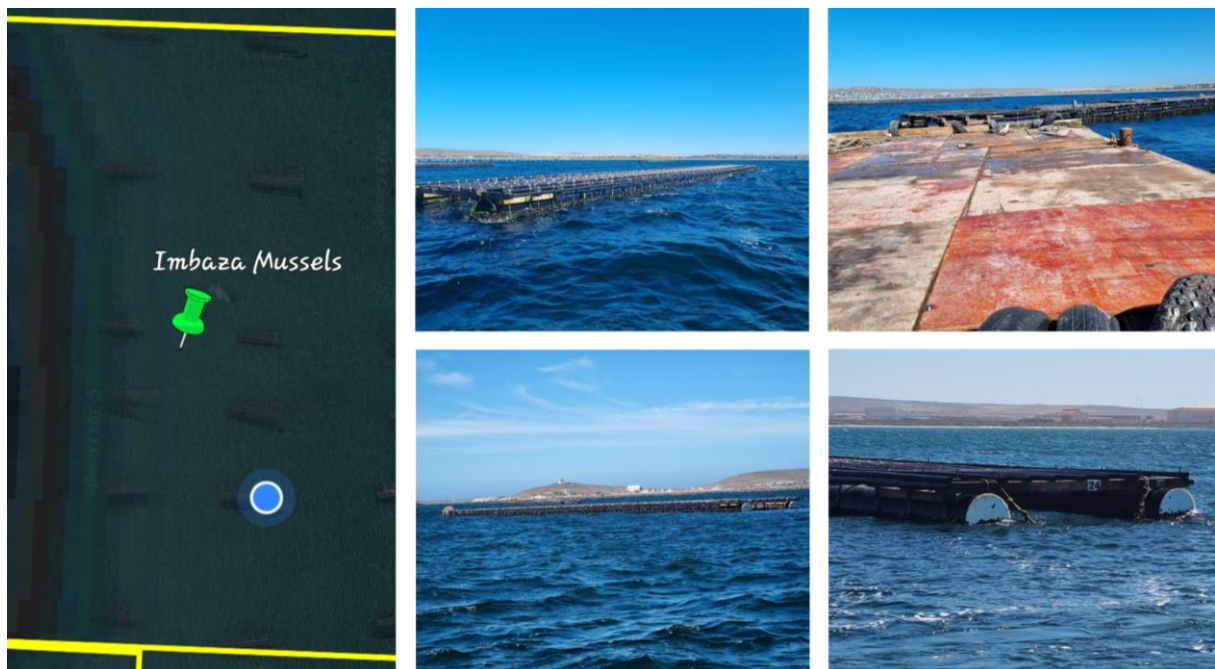


Figure 3.1. Live Google Earth pin of location of compliance photograph in relation to the IMB SB licence area (yellow boundaries) (right). Most of IMB's rafts were in good condition and no issues with litter, excess equipment, or loose items on the rafts or barges (middle top and bottom). The barge was in good condition, nicely cleaned after use (top right). A raft with IMB's unique markers and sequential number for identification (bottom right).



Figure 3.2. All mussel lines at WCOG were observed to be taut, straight, suitably floated (top and bottom left). However, marked with incorrect unique identifiers (top right). Live Google Earth pin of location of compliance photograph in relation to the WCOG SB licence area (yellow boundaries) (bottom right)

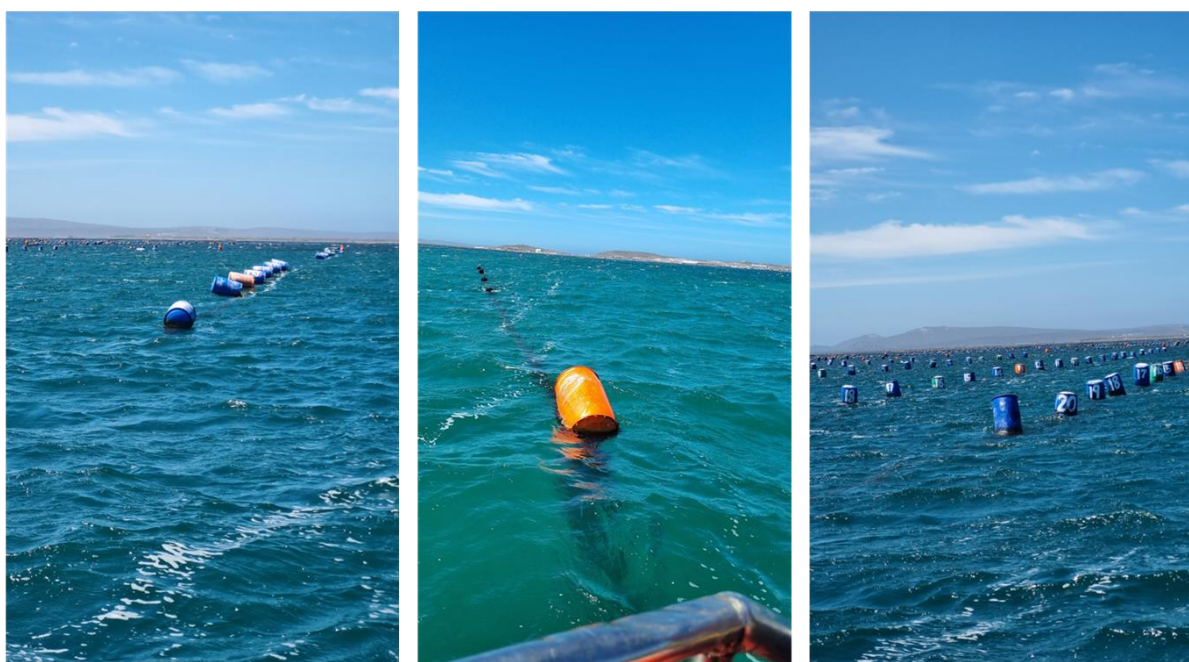


Figure 3.3. All oyster lines at WCOG were observed to be taut, straight, suitably floated (left and right). One of the dormant lines (middle).

3.3.2 PEPPER BAY JETTY

Operators are continuing to use pressure sprayers to remove the fouling organisms from in-water infrastructure equipment on the Pepper Bay Jetty. This results in fouling organisms being discarded back into the marine environment. This introduction of waste organic matter within the Small Bay environment may cause changes to physico-chemical conditions in the water, with potentially negative impacts on the marine environment. Furthermore, the sediment and shell waste has resulted in sedimentation next to Pepper Bay Jetty, decreasing the water depth next to the Jetty. This shallower water prevents vessels from coming alongside the Jetty at low tide and restricts aquaculture activities such as offloading harvested product. Land-based

activities, including those described above, are excluded from the ADZ EMPr and EA. However, as these activities are linked to the operation of the ADZ and contravene other environmental legislation (e.g., Section 28 of NEMA, Duty of care and remediation of environmental damage). To identify possible solutions or an alternative practice, discussions within the AMC and between the DFFE Project Management Team and operators are ongoing.

3.4 SUMMARY OF COMPLIANCE WITH THE EA AND EMPr

In December 2023, 24 conditions of a possible 27 were auditable, which is equivalent to the auditable conditions for the November 2023 period (Table 3.2). During the audit period in November 2023, the ADZ remained at an overall compliance score of 83%. Partial compliance remained at 17% and 0% in non-compliance. This indicated that there has been no change in the compliance percentage compared to the previous audit conducted in November 2023 (Table 3.2, Figure 3.4).

Table 3.2. Compliance over time April – December 2023.

Audit Date	Total applicable Conditions	Compliance percentage	Compliant	Partially Compliant	Non-compliant	Not applicable
2023/04/06	23	87%	20	3	0	4
2023/05/09	23	87%	20	4	0	3
2023/06/15	24	83%	20	4	0	3
2023/07/20	24	83%	20	3	1	3
2023/08/08	24	83%	20	3	1	3
2023/09/06	24	83%	20	3	1	3
2023/10/13	24	83%	20	4	0	3
2023/11/14	24	83%	20	4	0	3
2023/12/06	24	83%	20	4	0	3



Figure 3.4. ADZ compliance for year 2 of ECO audits conducted by Anchor (April 2023 to December 2023).

3.5 FARM MAINTENANCE PLAN FEEDBACK

Blue Ocean Mussels (BOM) and Saldanha Bay Oyster Company (SBOC) provided farm maintenance plans on 20 July 2022 as requested by the ADZ ECO in response to non-compliances with the infrastructure guidelines reported during June 2022 audit period. These plans were reviewed by the ADZ ECO and AMC and implemented by the relevant operators. Progress as per these plans has continued during the November 2023 audit period, and included maintenance to clean and remove lines, to repair and rebuild dilapidated rafts, and to put each raft on its own mooring (per the operational guidelines). Feedback on progress made up to 08 January 2024 with maintenance plans are given under Section 3.5.1 (for SBOC) and Section 3.5.2 (for BOM).

Non-compliances with the infrastructure and operational guidelines were observed on Requa Enterprises Outer Bay North farm during the February 2023 site inspection. The progress with maintenance and the development of the maintenance plan as of 08 January 2023 are provided in Section 3.5.3.

Pluto Mussel and Trading was found to be non-compliant with various aspects of farm operations, and the progress on maintenance of this farm is discussed in Section 3.5.4.

MMMAgri Consult's farm owner notified the ECO team and AMC representatives of the termination of the agreement service with Ocean Grown Aquaculture and possible intention to decommission the farm, this matter is discussed in detail in Section 3.5.5.

3.5.1 SALDANHA BAY OYSTER COMPANY

All buried lines, along with their associated infrastructure, have been successfully retrieved. The December 2023 audit indicates that only 5 buoys remain to be cleaned of biofouling (refer to Table 3.3). Once these remaining buoys are cleaned, SBOC will have completed their maintenance progress, and there will be no further need to report on this matter.

Table 3.3. Maintenance progress for SBOC, December 2023.

Maintenance item	Initial number	Number addressed	Total remaining
Longlines for removal	11	11	0
Buoys to be cleaned of biofouling	32	32	5
Subsurface inspection and cleaning of biofouling (shackles, mooring lines, and chains)	32	32	0
Divers inspect moorings to ensure that they have not moved and are in place	24	24	0

3.5.2 BLUE OCEAN MUSSELS

During the December 2023 audit, four rafts are still lashed together in grouped moorings (Table 3.4). Blue Ocean Mussels will successfully bring their farm back into compliance with the operational guidelines once these mooring have been separated.

In order to separate rafts lashed to one another, mooring blocks need to be moved and repositioned. The existing mooring blocks are embedded to the ocean floor, which represents a challenge to repositioning. However, new mooring blocks have been sourced. Procuring the chain required to attach rafts to the mooring blocks is the current challenge as new chain is very costly but, BOM are investigating their options. To reduce buffeting impact between rafts,

prevent further damage, and reduce the risk of environmental incident, 25 litre drums have been placed between the rafts to function as fenders. Rafts remaining lashed together include 47 & 43, 22 & 41, 20 & 44 and 39 & 40.

Table 3.4. Maintenance progress for BOM, December 2023.

Maintenance item	Initial number	Number addressed	Total remaining
Restore raft	15	15	0
Maintain raft	20	20	0
Rebuild raft	4	3	0
Move to separate mooring	26	19	4

The assistant farm managers mentioned that the weather, strong winds in particular, have been a major challenge to successfully plan to separate the remaining 4 rafts lashed together. The following rafts were successfully separated:

- 30 & 37
- 17 & 6
- 34 & 46

3.5.3 REQUA ENTERPRISES

To date, there has not been any maintenance plan submission from Requa. This farm has been struggling to find their infrastructure underwater. The farm owner has requested two other farm owners to assist him in this endeavour. The DFFE must advise Requa on the next steps to take if they do not find infrastructure on their farm.

The farm owner has been sending updates on the status of their farm via email since August 2023. These emails outline the challenges they are facing to retrieve their lines and refloat them. The latest email sent on the 19 December 2023 indicated that they have purchased a new Garmin GPS in order to correctly and precisely locate their farm boundary.

3.5.4 PLUTO MUSSEL TRADING

Pluto Mussel Trading indicated that no maintenance activities have occurred on the farm since 24 August 2023. The progress of the maintenance requested as per the non-compliance letter was not adhered to and there is no substantial feedback to date. This farm received an eviction notice from TNPA on the 30 October 2023 and are expected to remove all infrastructure from their farm. The ECO team is having difficulties contacting the farm owner telephonically or via email to potentially discuss the submission of a decommissioning plan, if necessary.

3.5.5 MMMAGRI CONSULT

A formal letter from MMMAgri Consult's farm owner to notify the ECO team and AMC representatives of the termination of the agreement service with SASH (taken over by Ocean Grown Aquaculture in mid-September 2023) was submitted on the 16 October 2023. The farm owner indicated that SASH has not serviced their mussel lines for some time and has led to a notice of non-compliance being issued by the ECO and a final coastal protection notice (in terms of 59(1) of the National Environmental Management Integrated Coastal Management Act, 2008) by the DFFE on the 31 August 2023. Since MMMAgri has been served with an eviction notice from TNPA on 30 October 2023, the ECO team requested maintenance and/or

decommissioning plan to be submitted. However, the farm owner is still in the process of finalising the way forward for their farm and no feedback has been provided.

3.6 FARM MONITORING REPORTS (FMRs)

Farm Monitoring Reports (FMRs) are completed and submitted by all operators prior to the 15th of the following month along with verification documentation (such as invoices or other means of tracking production). Each farm must submit a separate FMR for each farmed product and precinct in which they farm. Therefore, the feedback given below reports on the number of FMRs submitted.

During the December 2023 audit period, there was good compliance in meeting the FMR submission deadline. As of 03 January 2023, 21 out of 25 FMRs were submitted within the expected timeframe, and there was one outstanding submissions. Three FMR submissions were not available at the time of this reporting. All farms with sales provided supporting documents, except for 10 farms as shown in Table 3.5.

Table 3.5. FMR Submission status, supporting production verification documents and visual inspection logs. Late submissions, lack of supporting documents or non-provision of visual logs are highlighted in red.

Farm name	Location	Species	Date	Supporting Docs	Visual Inspection Log
African Olive Trading	Small Bay	Mussels	12/19/2023	yes	yes
Aqua Foods SA	Small Bay	Mussels/ oysters	12/14/2023	yes	yes
Aqua Foods SA	Big Bay	Mussels/ oysters	N/A – no active farming		
Blue Lagoon Products	Big Bay	Oysters	12/17/2023	no sales	
Blue Ocean Mussels	Small Bay	Mussels	Outstanding at time of drafting		
Blue Sapphire Pearls	Big Bay	Mussels	12/14/2023	yes	yes
Blue Sapphire Pearls	Small Bay	Oysters	12/14/2023	yes	yes
Cex Enterprises	Big Bay	Mussels	Not operational		
Imbaza Mussels	Small Bay	Oysters	12/5/2023	yes	yes
K2019005713	Big Bay	Mussels	12/13/2023	yes	yes
K2019005725	Big Bay	Mussels	12/13/2023	yes	yes
Lagoon Aqua Farm	Big Bay	Mussels	12/17/2023	no sales	yes
Madima General Agriculture Trading	Big Bay	Mussels	12/13/2023	no sales	yes
Mika Growers	Big Bay	Mussels	12/13/2023	yes	yes
MMMAgri Consult	Big Bay	Mussels	Outstanding at time of drafting		
Pluto Mussels and Trading	Big Bay	Mussels	Outstanding at time of drafting		
Requa Enterprises	North Bay	Mussels	N/A – no active farming		
Saldanha Bay Oyster Company	Small Bay	Oysters	12/13/2023	yes	yes
Saldanha Bay Oyster Company	Big Bay	Oysters	N/A – no active farming		
Salmar Trading	Small Bay	Oysters	12/13/2023	yes	yes
Simunye Mussels	Big Bay	Mussels	12/13/2023	yes	yes

Farm name	Location	Species	Date	Supporting Docs	Visual Inspection Log
Southern Atlantic Sea Farms 1	Big Bay	Mussels	12/13/2023	no sales	yes
Southern Atlantic Sea Farms 2	North Bay	Mussels	12/13/2023	no sales	yes
Southern Cross Salmon Farm	North Bay	Mussels	12/13/2023	no sales	yes
Ulwazi Kukutya	Big Bay	Mussels	12/13/2023	no sales	yes
Wada Projects	Big Bay	Mussels		Not operational	
Well Done Works	Big Bay	Mussels		Not operational	
West Coast Aquaculture	Small Bay	Mussels/ oysters	12/13/2023	yes	yes
West Coast Oyster Growers (WCOG)	Big Bay	Mussels/ oysters	12/13/2023	yes	yes
West Coast Oyster Growers (WCOG)	Small Bay	Oysters/ mussels	12/13/2023	yes	yes
Xesibe Aquaculture	North Bay	Mussels	12/13/2023	no sales	yes

3.7 BEACH MONITORING BY OPERATORS

In September 2022, the Bivalve Shellfish Association of South Africa (BSASA) provided names of three members of the Aquaculture Industry who have committed to monitoring and cleaning beaches (Table 3.6). The ECO provided a feedback template to the volunteer operators to record waste volume estimates, dominant waste type and percentage of collected waste that comprises aquaculture debris. Beach clean-up feedback is provided the following month to ensure data for the entire month is captured. Waste data has been provided for beach clean-ups for Small Bay and Big Bay. Detailed feedback has not been provided Marcus Island to date, however photographic evidence was provided in September 2022, due to the direction of the prevailing swell and current, minimal waste is anticipated to wash up on Marcus Island. No evidence of clean-up or waste data have been provided for Outer Bay North to date. Clean-ups in this area falls within the Military Academy and has restricted access. Once a suitable candidate has been identified and appointed, data and evidence of waste removal will be provided for the Outer Bay North beaches. It is crucial that beach clean-up data for Outer Bay North is urgently provided.

Table 3.6. Members of Aquaculture Industry committed to beach monitoring and clean-up as required by EMP conditions 1 and 2 of Table 7-1.

Responsible party	Group/affiliation	Precinct	Beach	Frequency
Wayne Maree	Aquafoods SA			Twice a month
Armand van Niekerk	Claritas Business Rescue, Restructuring and Advisory	Big Bay (BB)	Spreeuwalle – Paradise beach	Bi-weekly
Armand van Niekerk	Claritas Business Rescue, Restructuring and Advisory	Outer Bay North (OBN)	West and Eastern Beach	Monthly
Vos Pienaar	Imbaza Mussels	Small Bay (SB)	Small Bay Northern beaches (Hoedjies Bay to Mossgas)	Weekly

Responsible party	Group/affiliation	Precinct	Beach	Frequency
SJ Poggenpoel	Blue Ocean Mussels (BOM)	Small Bay (SB)	Marcus Island – SB side	Monthly

In Small Bay, the waste collected primarily consists of litter and general waste, with only a small portion originating from the aquaculture industry (Figure 3.5). On the other hand, in Big Bay, most of the waste collected from the beaches is composed of aquaculture floats, while a smaller portion is comprised of rope offcuts that are collected in refuse bags (Figure 3.6). However, no waste collection data or information regarding aquaculture floats has been provided or observed for Big Bay in April and May 2023. This was mainly because the SASH group undergoing business rescue through Claritas. A Beach patrol was done in Big Bay on the 18 November 2023 where a few floats were found and tied together and only collected in December 2023. This data will be reported on the January 2024 audit report. There are about 49 floats that were retrieved during the beach up activity.

Refuse bags collected from beaches

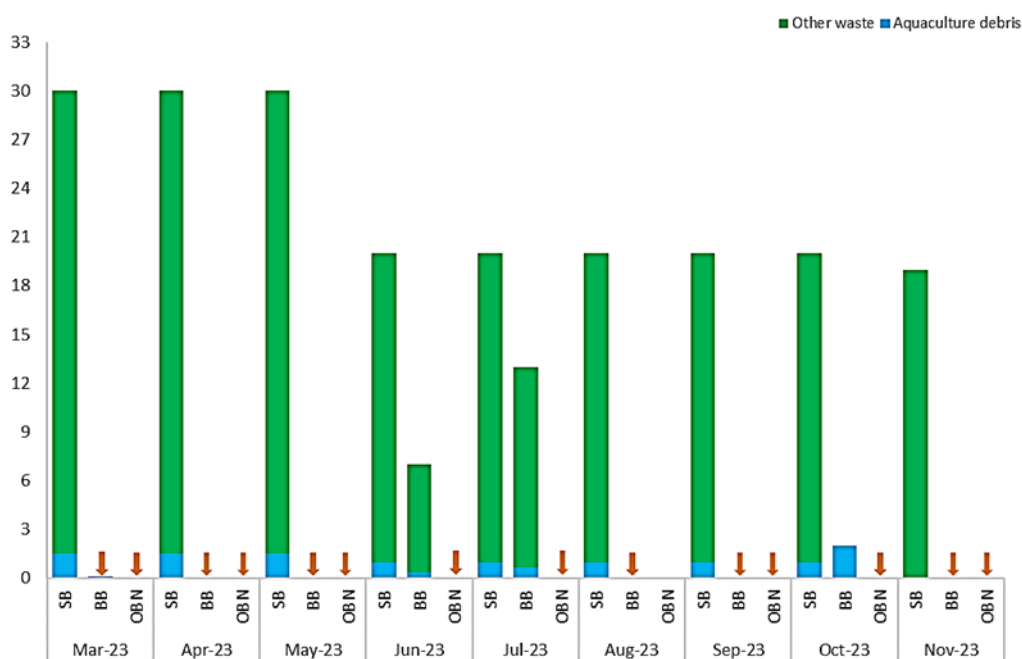


Figure 3.5. Waste collected in refuse bags from beaches in the various precincts. Total waste collected and portion of waste constituting aquaculture debris is presented. For the period of January 2023 to May 2023, no data has been provided for the BB and OBN precincts. Beach clean ups were not conducted in August, September and November 2023 for BB. However, there is data available for the month of March and June 2023, but only for the BB precinct.

Floats collected from beaches

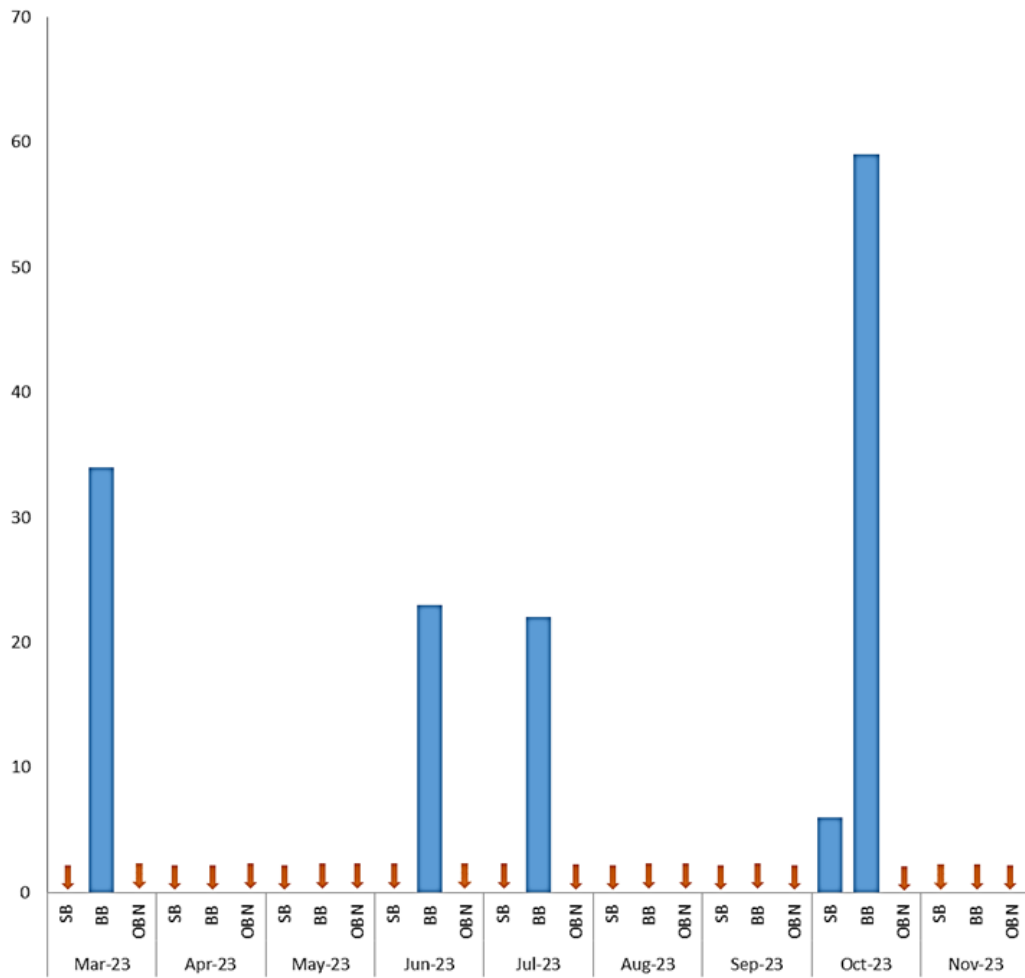


Figure 3.6. Floats collected from beaches in the various precincts. The absence of data is not attributed to the lack of floats, but rather to the absence of reporting.

3.8 BEACH INSPECTION BY ECO

ECO beach inspection for Small Bay was conducted during the December 2023 audit (Figure 3.7). During the beach inspection, only cut ropes were observed on the beach.



Figure 3.7. Small Bay beach inspection.

3.1 INCIDENTS DURING THE LAST MONTH

On the 1st of December 2023 audit, it was reported that the vessel successfully repositioned WCOG's line 4, resolving the incident that occurred on 24 November 2023. The completion of this resolution took place on 30 November 2023. Regrettably, the vessel sustained damage during this process, preventing it from fully tensioning the line (IR Dec 23-01).

4 ADZ MANAGEMENT

4.1 BAY USER SAFETY

The DFFE has no control over this, and it is the mandate of TNPA, who must ensure that the ADZ is accurately demarcated with South African Maritime Safety Authority (SAMSA) approved marker buoys (EMPr table 5-1, condition 2). To identify the required marker buoys for the ADZ, an Aids to Navigation (AtoN) Plan was developed (final draft submitted on 27 November 2022). Before the AtoN plan can be implemented, a Navigational Risk Assessment needs to be conducted for Saldanha Bay. The workshop for stakeholder engagement on this Risk Assessment was held on 11-12 October 2023. The AtoN plan will be updated based on the workshop outcomes and TNPA will be responsible for installing the required infrastructure to demarcate the boundaries of the ADZ.

4.2 BIVALVE PRODUCTION VOLUMES

Graded production volumes in the ADZ are recoded monthly. Production volumes for June 2023 and cumulative production to date supplied by the Branch: Fisheries Management using the approved formula to calculate total ungraded production are presented in Table 4.1. Production is below the current limit of 15 000 tpa ungraded shellfish (7 500 tpa graded). Per the EA, bivalve production may be increased by an additional 5 000 tons annually but only if monitoring results indicate that the environment health has been maintained and impacts remain manageable. To ensure sustainable development, the Saldanha Bay Aquaculture Development Zone Management Committee (AMC) must consider the results and reports from environmental monitoring as well scientific recommendations, which will inform the possible increase in production.

Table 4.1. ADZ bivalve production (tons). The Approximate ungraded production is based on the conservative assumption that the ratio of ungraded to graded shellfish volume is ~2:1.

ADZ Precinct	Monthly graded production November 2023	Graded production				
		Feb 2019-Jan 2020 (Year 1 prod)	Feb 2020-Jan 2021 (Year 2 prod)	Feb 2021-Jan 2022 (Year 3 prod)	Feb 2022-Jan 2023 (Year 4 prod)	Feb 2023-Jan 2024 (Year 5 prod)
Small Bay	248	2847	1936	2921	2621	3006
Big Bay	9,2	189	240	480	700	259
Outer North Bay	0	433	297	330	175	0
Outer South Bay	-	-	-	-	-	-

Graded production						
ADZ Precinct	Monthly graded production November 2023	Feb 2019-Jan 2020 (Year 1 prod)	Feb 2020-Jan 2021 (Year 2 prod)	Feb 2021-Jan 2022 (Year 3 prod)	Feb 2022-Jan 2023 (Year 4 prod)	Feb 2023-Jan 2024 (Year 5 prod)
Total graded	257	3 468	2473	3731	3496	3264
Approximate ungraded production	479	6 497	4 707	7 228	6664	6108

4.3 ENVIRONMENTAL MONITORING

None to report.

5 RECOMMENDATIONS

5.1 GENERAL RECOMMENDATIONS

The following recommendations are made by the ECO for the consideration of Branch Fisheries Management.

- NatGro was previously accepting organic waste from the aquaculture industry for composting but have recently restricted acceptable waste due to odour complaints. Therefore, limiting industry's legal options for safe waste disposal. It is recommended that operators engage with NatGro Organics to identify their specific concerns for composting aquaculture biological waste and attempt to find a solution to these concerns. This matter was discussed in the operators meeting that was held on the 18 October 2023, unfortunately there was no resolution.
- Once the Navigational Risk Assessment is concluded, the AtoN Plan should be finalised, and the TNPA is the mandated authority and should ensure implementation and execution of this plan.
- Monitoring progress with the maintenance plans should continue.
- Monitoring of beach waste data submitted by the Operators should continue. Either Ocean Grown Aquaculture continues to monitor and clean-up Outer Bay North and Big Bay beaches, or a suitable replacement be found, and the ECO should be updated on these activities.
- The main receiving beaches should continue to be included in ECO site inspections.
- The DFFE: Fisheries Management should continue discussions within the AMC forum and with operators to determine a solution to the accumulation of sediment due to wash down activities on Pepper Bay Jetty. This matter was raised in the last AMC meeting (27 March 2023), and it was agreed that discussions between the Department and Saldanha Bay municipality need to occur. However, this needs to be taken by the DFFE's compliance department as this is their mandate.
- The ECO strongly recommends that the DFFE Project Management Team action a dive inspection to assess the situation in the Big Bay precinct. The overall conditions of the farms were primarily assessed based on observations from above the surface waters. However, it is imperative to assess the impact of all the sunken infrastructure beneath the waters and on the seafloor. The presence of sunken mussel lines has the potential to increase mussel dislodgement and cause scouring of the reef. Therefore, a thorough investigation is necessary to fully understand the implications of such infrastructure on the marine environment.
- A reef survey is scheduled to be commissioned in the upcoming contract, and this will shed light on the matter.

The following recommendations are made by the ECO for the consideration of Operators:

- Frequent cleaning of biofouling from lines and infrastructure should occur to reduce the risk of lines chaffing and breaking.

- Beach monitoring and removal of aquaculture debris should occur twice a month (minimally) to ensure that beaches are free of aquaculture debris.
- Monitoring and gathering data on Endangered, Threatened, and Protected (ETP) species should be considered a priority as it is a requirement for Marine Stewardship Council (MSC) accreditation which will aid in accessing European markets.
- The Operators must engage with DFFE: Compliance to assist in determining a solution to the accumulation of sediment due to wash down activities on Pepper Bay Jetty.
- Operators should attempt to determine collaborative solutions to the illegal wash-down practice occurring at Pepper Bay Jetty.

5.2 EVALUATION OF EMPr

In the opinion of the ECO, no changes should be made to the EMPr to ensure continued avoidance, management, and mitigation of environmental impacts. Furthermore, the ECO does not recommend changes to the EMPr to ensure compliance with the EA. After the February 2024 audit is completed there may be changes to the EMPr if suggested by the auditor.

6 CONSULTATIONS AND COMMUNICATIONS

6.1 CONSULTATIONS

1. Copies of comments received:
 - Communications register December 2023.
 - Documents register December 2023.
2. Information requested by the competent authority:
 - None.
3. Interviews, discussions, and other communications.
 - None

6.2 COMMUNICATIONS

Communications received by the ADZ ECO during the December 2023 audit period are presented in Table 6.1 below.

Table 6.1. Individual, organization, and purpose of consultation during the December 2023 audit period.

Individual	Organisation	Subject
Nceba Buhlungu	Pluto Mussel and Trading	Request to collect the line infrastructure on Ocean Grown facilities
Julia Ndou	Saldanha ADZ ECO	RE: Poll - AMC letter to SBOC: oyster to mussel farming
Nceba Buhlungu	Pluto Mussel and Trading	Confusion as to whether Pluto mussels' products were harvested or have sunken
Julia Ndou	Saldanha ADZ ECO	The conversion of farming oysters to mussel farming and the proposal to have a 97.5tpa mussel production was approved by the AMC
Julia Ndou	Saldanha ADZ ECO	RE: Approval letter: Mussel to oyster farming & increase production
Leon Moodaley	Requa Enterprises	Progress with Refloating of Requa Lines



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ANCHOR
environmental