forestry, fisheries & the environment

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

SALDANHA BAY AQUACULTURE DEVELOPMENT ZONE ENVIRONMENTAL CONTROL OFFICER SUMMARY REPORT 16

July 2023

ANCHOR environmental

Anchor Research & Monitoring Report No. 2014/16_2c

Cover photo: Julia Ndou

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July 2023

Report prepared for:

Department of Forestry, Fisheries and the Environment
Branch: Fisheries Management

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LIST OF ABBREVIATIONS

ADZ	Aquaculture Development Zone
AMC	Aquaculture Management Committee
Anchor	Anchor Environmental Consultants
Anchor	Anchor Research & Monitoring (Pty) Ltd
BB	Big Bay
BLP	Blue Lagoon Products
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
FSO	Food Safety Office
IR	Incident Report
LAF	Lagoon Aqua Farms
LST	Lipophilic Shellfish Toxin
MLRF	Marine Living Resources Fund
NC	Non-compliant
NRCP	National Residue Control Programme
OBN	Outer Bay North
OBS	Outer Bay South
PC	Partial Compliance
SAMSA	South African Maritime Safety Authority
SASH	South Atlantic Seafoods Holdings (Pty) Ltd
SB	Small Bay
SBIDZ	Saldanha Bay Industrial Development Zone
SBM	Saldanha Bay Municipality
SBOC	Saldanha Bay Oyster Company
SBWQFT	Saldanha Bay Water Quality Forum Trust
TNPA	Transnet 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

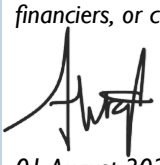
Box 1: Declaration of Independence of Environmental Control Officer

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.

01 August 2023

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.



01 August 2023

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

1 INTRODUCTION

1.1 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 July 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.

1.2 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 and 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/AM1 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 have been recommended by the ECO or the annual external auditors, and the EMPr will remain unchanged for this year. 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.

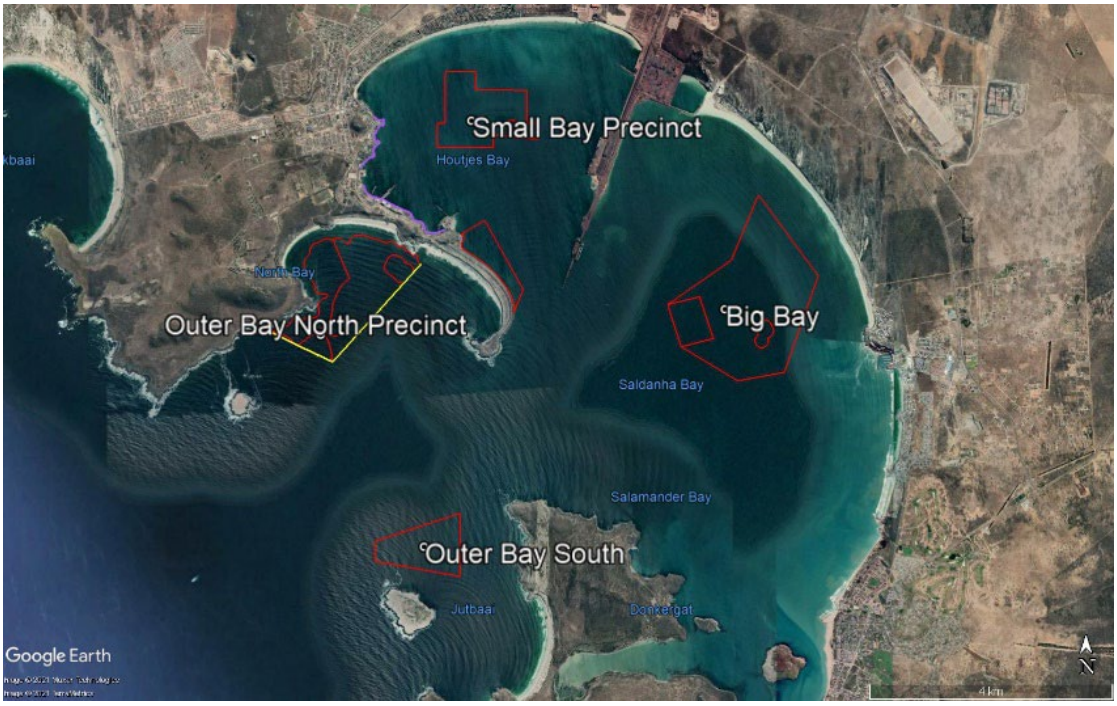


Figure 2.1. Saldanha Bay ADZ precincts.

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).

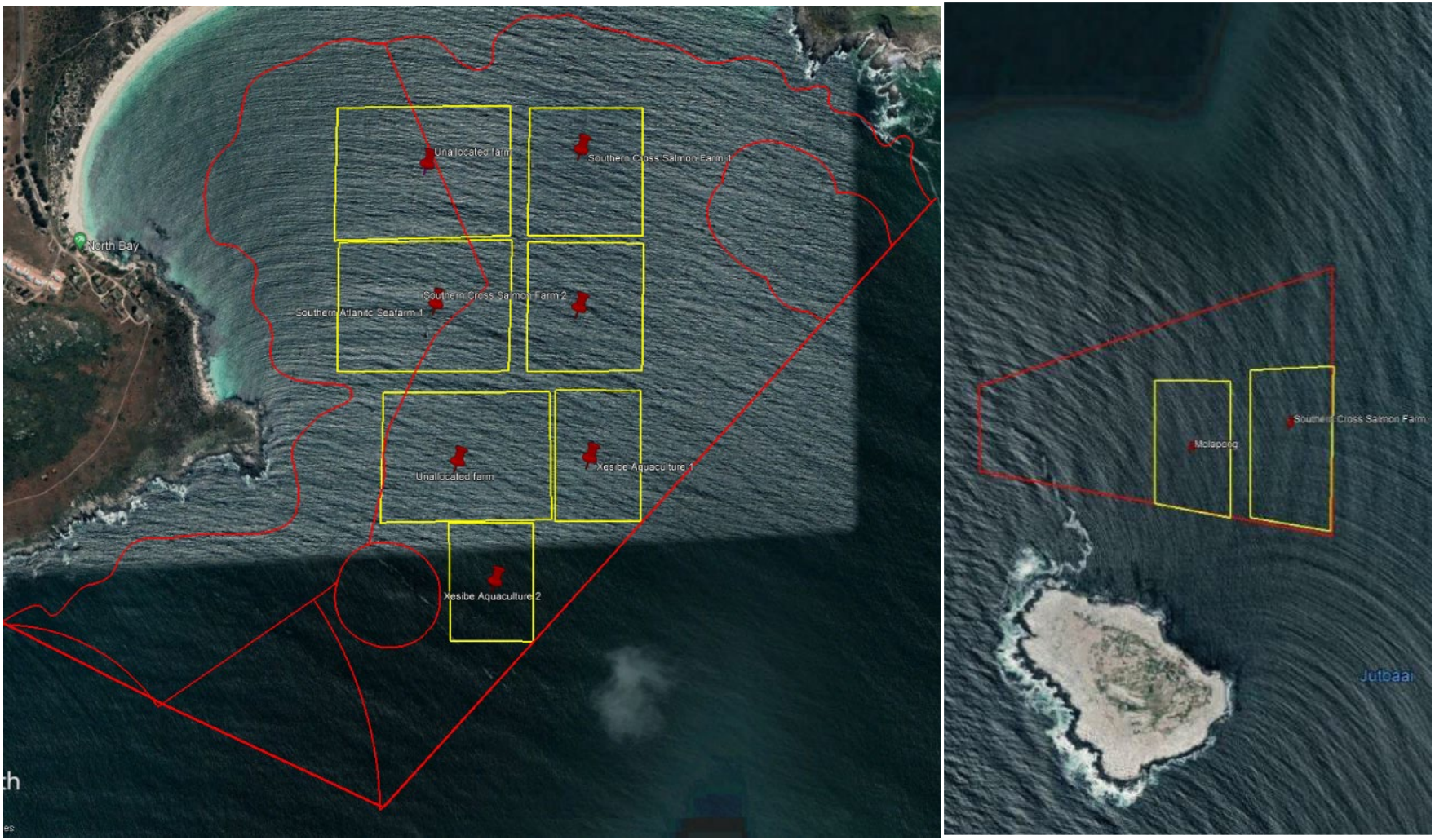


Figure 2.3. (Left) Bivalve culture in Outer Bay North (OBN) and (right) finfish culture in Outer Bay South (OBS).

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 EMPr. A list of Operators in the ADZ as of April 2023 (2nd annual cycle) 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

Throughout the audit period in July 2023, there was a decrease in instances of partial compliance, and an increase in non-compliance. The total count of partial compliance reduced from four in the previous audit period (June 2023) to three, and non-compliance instances increased from zero to one. The previous three partial compliances relate to demarcation of the ADZ, enforcing maintenance and operational guidelines, and monitoring the shoreline for aquaculture debris. The newly observed instance of partial compliance pertains to SASH's inability to maintain their farms and the cessation of beach clean-ups. These partial and non-compliances are summarised below:

- The ADZ 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). Before the AtoN plan can be implemented, a Navigational Risk Assessment needs to be conducted for Saldanha Bay. The initial workshop for stakeholder engagement on this Risk Assessment was originally planned for 14-15 June 2023. However, it has been rescheduled and will now take place from the 11-12 October 2023.
- 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 2014/16_1b (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 2014/16_1b. While SASH group have committed to beach clean ups in Outer Bay North and Big Bay, SASH group is currently undergoing business rescue, which presented challenges to effecting beach clean-ups during the months of May and June. However, upon securing funding from an investor, Claritas was able to clean up Spreeuwalle Beach on the 20 July 2023 as the

ECO saw more black floats later in the day. It is imperative that these clean-up efforts continue throughout the Business Rescue process.

- Despite being in business rescue, SASH must initiate the 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 — JULY 2023

SASH Group's maintenance agreement covers 10 farms in the Big Bay precinct, and the recent July Audit highlighted several critical observations. The primary concern is the excessive biofouling on infrastructure like floats and buoys, potentially harming mussel growth and causing operational issues. Another issue is the significant variation in the number of lines on each farm, with many lines missing compared to the expected total. Moreover, the condition of the lines varies, with some not taut and straight, and others fully or partially submerged, necessitating urgent harvesting. The absence of end floats and submerged buoys, often clustered together, further compounds the challenges. Broken lines floating in the water also pose a risk of entangling marine life. Additionally, identifying markers on end floats are often obscured by various factors. Lastly, infrastructure encroachment affects farms not under SASH Group's ownership. Addressing these concerns is crucial to maintaining healthy and productive mussel farms and ensuring sustainable operations.

The overall conditions of the farms were primarily assessed by the ECO based on observations from above the surface. 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. In light of this and given the extent of infrastructure that appears to be missing or sunken, the ECO strongly recommends that the DFFE Project Management Team undertake a dive inspection to assess the below surface situation in the Big Bay precinct.

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 discarding 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 July 2023, 23 conditions of a possible 27 were auditable, which is equivalent to the auditable conditions for the June 2023 period (Table 3.1). During the audit period in July 2023, the ADZ attained an overall compliance score of 83%. Despite a slight decline in partial compliance, there was a notable 4% increase in non-compliance. This indicates that there has been a change

in the compliance percentage compared to the previous audit conducted in June 2023 (Table 3.1, Figure 3.1).

Table 3.1. Compliance over time April – July 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	3	0	4
2023/06/15	24	83%	20	4	0	4
2023/06/20	24	83%	20	3	1	4

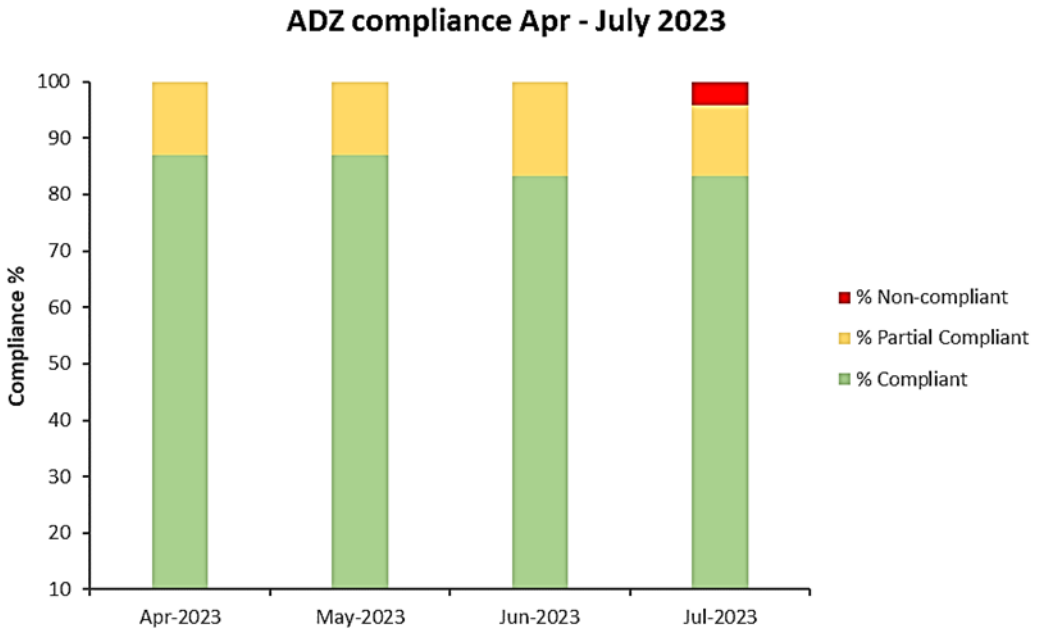


Figure 3.1. ADZ compliance for year 2 of ECO audits conducted by Anchor (April 2023 to July 2023).

3.5 OPERATOR LEVEL FINDINGS

3.5.1 FARM INSPECTIONS

On 20 July 2023, the ECO conducted exclusive on-water inspections for eleven farms located in the Big Bay precinct. These farms include Blue Sapphire Pearls (BSP), K2019005713 (K13), K2019005725 (K25), Madima General Agriculture Trading (MAD), Mika Growers (MIK), MMMAgri Consult (MMM), Pluto Mussel & Trading (PLU), Simunye Mussels (SIM), Southern Atlantic Sea Farms 2 (SASF2), Ulwazi Kukutya (ULW), 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 3.2. The only farm that was partially compliant was Blue Sapphire Pearls, whilst the remaining ten farms were non-compliant with the operational guidelines. No farm was assessed as being fully compliant with operational guidelines. The main issues of non-compliance are attributed to the fact that these farms have not been maintained since April 2023.

Table 3.2. Farms inspected during the July 2023 ECO site inspection and compliance feedback.

Farm name	Location	Species	Compliance status	Comment
Blue Sapphire Pearls	Big Bay	Mussels	PC	4 mussel lines and 3 oyster lines, all taut, straight, suitably floated and marked with unique markers. However, some of the floats and buoys had been affected by biofouling.
K2019005713	Big Bay	Mussels	NC	11 mussel lines are authorised in this farm and only 7 installed to date. Lines 1, 4 and 6 were taut and straight. These lines had very low biofouling on them. It assumed that the rest of the infrastructure is missing or sunken.
K2019005725	Big Bay	Mussels	NC	11 mussel lines are authorised in this farm and only 7 installed to date. Line 1 was broken and partially sunken. Lines 2, 5, 6 and 7 were missing or completely sunken. Line 4 appeared to be under water.
Madima General Agriculture Trading	Big Bay	Mussels	NC	11 lines are authorised, 6 lines active and 2 dormant in this farm. A few lines were taut and straight but very low and ready for harvesting. These lines were not biofouled. Lines with a cluster of buoys were evident. Lines 3, 4 and 6 have sunken. Parts of line 3 and 4 were tangled together. There were also ropes floating under water.
Mika Growers	Big Bay	Mussels	NC	11 mussel lines are authorised and 3 dormant in this farm. However, there were end floats with numbers 13 and 12 which were sunken with no buoys or droppers nor stock. In addition, line 1 had no stock, only lines 4, 5, 6, 9 and 11 were taught and straight. Line 10 was missing an end float. Consequently, all infrastructure was biofouled. The remaining lines were sunken or missing. A single buoy was floating about on its own with no visible line.
Mmmagri Consult	Big Bay	Mussels	NC	11 mussel lines are authorised, 10 active and 3 dormant in this farm. The visible lines on this farm were very low particularly line 7. End floats on with no visible markers. The buoys are in groups of three or more. Major gap between line 1 and 4. A broken line was also observed.
Pluto Mussels and Trading	Big Bay	Mussels	NC	11 mussel lines are authorised, 6 active and 5 dormant in this farm. Line 3 and 4 are close to each other. Line 3 partially sunken. A long rope on the surface with just a buoy holding it up. The remaining infrastructure is missing or sunken. A float which belongs to Pluto Mussel and Trading was floating between SASF2 and Simunye mussel boundaries.
Simunye Mussels	Big Bay	Mussels	NC	11 mussel lines are authorised, 6 active and 1 dormant in this farm. Line 2 was taut and straight but was biofouled. Line 1 had no stock. Lines 3, 4, 5 and 6 are either sunken or missing.
Southern Atlantic Sea Farms 2	Big Bay	Mussels	NC	11 mussel lines are authorised in this farm. No infrastructure or product was observed but unidentified end float and 3 buoys were floating about on this farm.
Ulwazi Kukutya	Big Bay	Mussels	NC	6 mussel lines are authorised and 3 dormant in this farm. Line 3 was the only line existing on this farm and was sunken. Two buoys were

Farm name	Location	Species	Compliance status	Comment
				seen underwater with no visible line. No additional infrastructure was seen on this farm.
West Coast Oyster Growers	Big Bay	Mussels/ oysters	**NC**	14 mussel lines are authorised, 11 active and 2 dormant in this farm. Only lines 2 and 6 were taut and straight. Lines did not have end floats. End floats with no lines and identifying markers have faded. The rest of the lines were missing sunken. Most of the infrastructure had excess biofouling.

Blue Sapphire Pearls (BSP) is a privately owned farm that is not under the management of the SASH Group. The farm owner indicated that four lines are rented out to the SASH Group and has assumed management due to the business rescue proceedings. There are total of 4 mussel lines and 3 oyster lines in BSP that are authorised by the DFFE. These lines were all taut and straight, appropriately floated, and distinguished by unique markers (Figure 3.2). Nevertheless, a few of the floats and buoys had become biofouled, and require maintenance, hence the Partially Complaint rating (Table 3.2).

The K2019005713 (K13) farm is authorized for a total of 11 mussel lines. Currently, only 7 lines are present on the farm, and the 4 additional lines are yet to be installed. Among them, lines 1, 4, and 6 were found to be taut and straight and they were not affected intensively by biofouling (Figure 3.3). As for the remaining lines, it is assumed that the infrastructure is either missing or sunken, hence the Non-Compliant rating (Table 3.2).

K2019005725 (K25) also have 11 mussel lines officially authorised and also have 7 lines present on the farm. The 4 additional lines have not been installed yet. Upon inspection, it was noticed that line 1 had suffered damage and was broken, leaving it partially submerged. Lines 2, 5, 6, and 7 were not found in their expected positions and were likely missing or entirely submerged. Line 4 was observed to be under the water's surface. Some biofouling on buoys was observed (Figure 3.4). As such, the farm was rated as Non-Compliant with Operational Guidelines (Table 3.2).

Madima General Agriculture Trading (MAD) have a total of 11 authorised mussel lines. Presently, only 6 of these lines are in existence on the farm, and the 5 additional lines are yet to be installed. Some of these lines were observed to be taut and straight, but they were positioned very low in the water indicating they were ready for harvesting. The majority of these lines were not affected by biofouling. Additionally, there were lines with clusters of buoys grouped together (Figure 3.5). Lines 3, 4, and 6 were found to be completely sunken. The entanglement of parts of lines 3 and 4 poses a risk to whale entanglement, creating further complications in the mussel farm operation. **This situation requires immediate attention and action to prevent any harm to marine wildlife and to ensure the safe and sustainable functioning of the farm. Furthermore, during the inspection, floating ropes were spotted beneath the water's surface, adding to the complexities of the situation**. This farm is therefore rated as Non-Compliant with Operational Guidelines (Table 3.2).

There should be 11 authorised mussel lines located Mika Growers (MIK) farm boundary. During the inspection, it was noticed that there were sunken end floats with the numbers 13 and 12. These floats had no buoys, droppers, or product attached to them. This farm is not permitted to have lines 12 and 14. In addition to this, there was no notification to the ECO about adding the remaining 4 approved lines. Line 1 was found to have no product, meaning

there were no mussels attached to it. Only lines 4, 5, 6, 9, and 11 were observed to be taut and straight, indicating that they were properly installed and operational. However, line 10 was missing an end float. Most of the infrastructure, including the buoys and floats, was heavily affected by biofouling (Figure 3.5). This could potentially have implications on the overall health and productivity of the mussel farm. Moreover, the remaining lines were either sunken or missing entirely. There was also a solitary buoy floating aimlessly with no visible line attached to it. Therefore, MIK is rated as Non-Compliant with Operational Guidelines (Table 3.2).

MMMAgri Consult (MMM) have 11 authorised mussel lines. There should be 7 lines installed on this farm. Presently, only 10 of these lines are in existence on the farm, and there has been no notification provided to the ECO regarding the addition of the remaining 4 approved lines. Therefore, there are 13 lines in total on this farm and this is not allowed. During the inspection, it was noticed that the visible lines were positioned very low in the water, especially line 7. The end floats were present, but there were no visible markers on them, making it difficult to distinguish between lines. The buoys in this farm were arranged in groups of three or more, which might indicate some form of organisation or pattern. It is not known if this arrangement was deliberately done or is a result of the lines not being maintained. Furthermore, there was a significant gap between line 1 and 4, suggesting a potential issue with the layout or that lines 2 and 3 have sunken. Moreover, a broken line was observed, indicating damage to the infrastructure that would need attention and repair (Figure 3.7). Therefore, MMM is rated as Non-Compliant with Operational Guidelines (Table 3.2).

A total of 11 mussel lines are authorised in Pluto Mussel & Trading (PLU) farm boundary. Currently, only 6 lines are present on the farm, and the 5 additional lines are yet to be installed. Notably during site inspection, lines 3 and 4 were very close to each other. In addition to this, line 3 appeared to be partially sunken. Furthermore, there was a long rope observed on the water's surface, with only a buoy keeping it afloat. This indicates that some part of the infrastructure might be missing or submerged beneath the water (Figure 3.8). Additionally, it was noticed that most of the remaining infrastructure, presumably the other mussel lines, is either missing or sunken. Interestingly, a float that belongs to Pluto Mussel and Trading was found floating in an area between SASF2 and Simunye Mussel boundaries. PLU is therefore rated as Non-Compliant with Operational Guidelines (Table 3.2).

Simunye Mussels (SIM) have 11 authorised mussel lines. At present, only 6 are present on the farm, and the 5 additional lines are yet to be installed. During the inspection, it was observed that line 2 were taut and straight but affected by biofouling. Line 1 had no mussel product i.e., there were no mussels present on this line. Furthermore, there were concerns about lines 3, 4, 5 and 6, as they were either sunken under the water or entirely missing (Figure 3.9). This raises questions about the integrity of the infrastructure and the need for further investigation or repairs to ensure the farm operates efficiently and effectively. SIM is therefore rated as Non-Compliant with Operational Guidelines (Table 3.2).

The Southern Atlantic Sea Farms 2 (SASF2) is authorised for 11 mussel lines. During the inspection, no infrastructure or mussel products were observed on the site. Nonetheless, there were some floating infrastructures noted, including an unidentified end float and three buoys, which might be related to the mussel farming operation (Figure 3.10). The duty of care and remediation of environmental damage is defined in Section 28 of the Act which form part of the National Environmental Management Act (NEMA), and SASF2 was issued with a notice of suspension of right in accordance with Section 28 due to whale entanglement and compliance issues related to permit applications on 21 November 2022. SASH is again rated as Non-Compliant with Operational Guidelines (Table 3.2).

There are a total of 6 authorised mussel lines and 3 dormant on Ulwazi Kukutya (ULW). However, during the inspection, it was discovered that only line 3 was present, and found to be sunken under the water (Figure 3.11). Moreover, two buoys were observed underwater, but there was no visible line attached to them, indicating that some part of the infrastructure might be missing or submerged. Additionally, there was no other infrastructure, such as the remaining mussel lines, found on this farm, which might suggest that further installation or maintenance is needed to establish the complete mussel farm as intended. ULW is therefore rated as Non-Compliant with Operational Guidelines (Table 3.2).

West Coast Oyster Growers (WCOG) have a total of 14 authorised mussel lines. Currently, only 11 lines are present on the farm, and there has been no notification to the ECO about adding the remaining 3 approved lines. During the inspection, it was found that only lines 2 and 6 were taut and straight, suggesting they were properly tensioned and functioning as intended. One important issue noticed was that the lines did not have end floats, which are crucial for keeping the lines afloat and visible. Moreover, there were end floats observed, but they had no visible lines attached to them, and their identifying markers had faded over time, making it challenging to identify the lines successfully. Additionally, most of the infrastructure, such as the other mussel lines, was either missing or sunken underwater, which could have implications on the farm's productivity and stability (Figure 3.12).

3.6 COMPLIANCE PHOTOGRAPHS

3.6.1 BLUE SAPPHIRE PEARLS

Figure 3.2. BSP longlines observed to be straight, taut, suitably floated, and marked with unique identifiers (top and bottom left and right). Live Google Earth pin of location of compliance photograph in relation to the BSP Big Bay licence area (yellow boundaries) (top middle).

3.6.2 K2019005713 (K13)

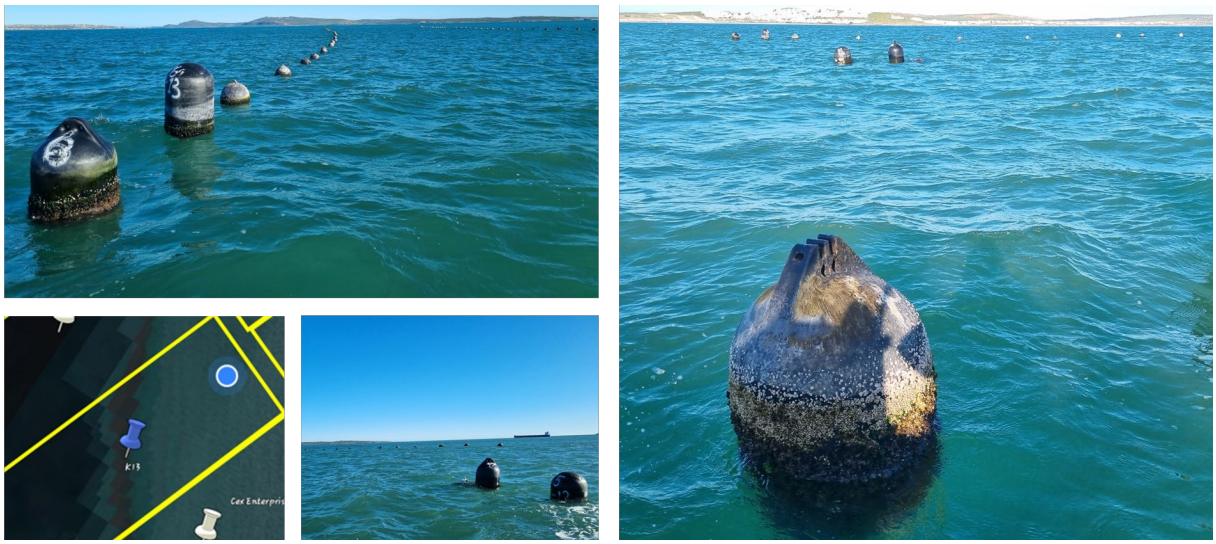


Figure 3.3. K13 line 6 observed to be taut, straight, suitably floated and marked with unique identifiers (top left). Live Google Earth pin of location of compliance photograph in relation to the K13 Big Bay licence area (yellow boundaries) (bottom left). Sunken line (bottom middle) and a float with some biofouling (right).

3.6.3 K2019005725 (K25)

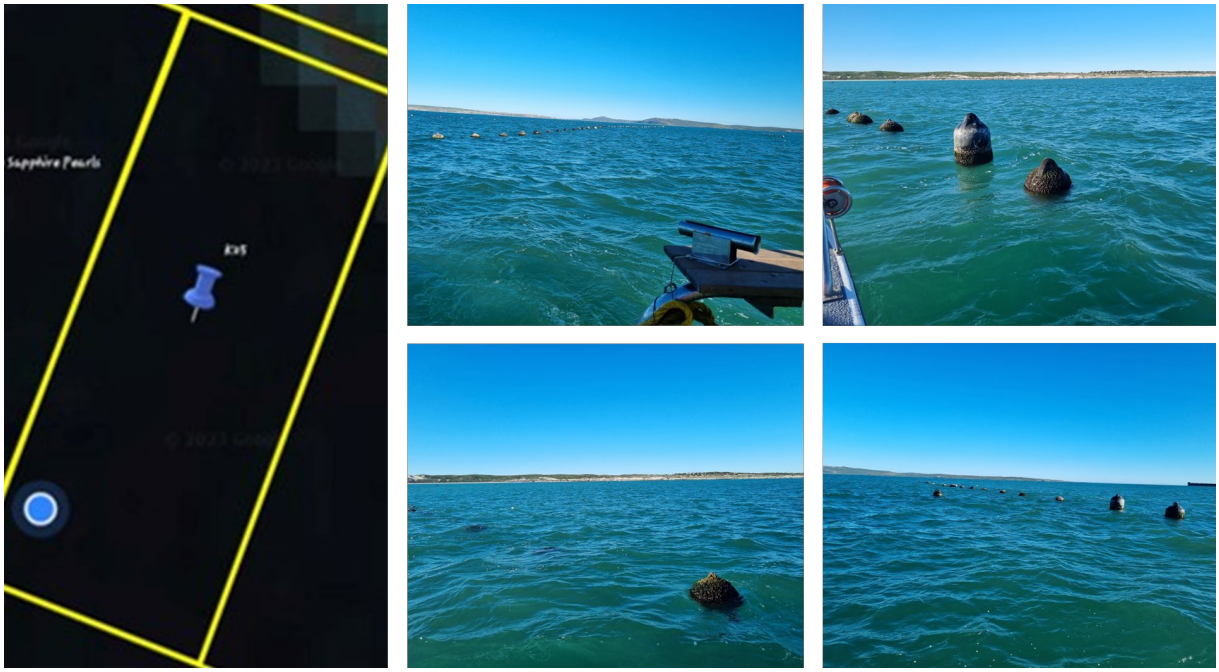


Figure 3.4. Live Google Earth pin of location of compliance photograph in relation to the K25 Big Bay licence area (yellow boundaries). K25 lines observed to be taut, straight, suitably floated and marked with unique identifiers with some biofouling (top left). Sunken line (bottom middle) and faded identifying marker (top right) line 4 appeared to be under water (bottom right).

3.6.4 MADIMA GENERAL AGRICULTURE TRADING (MAD)

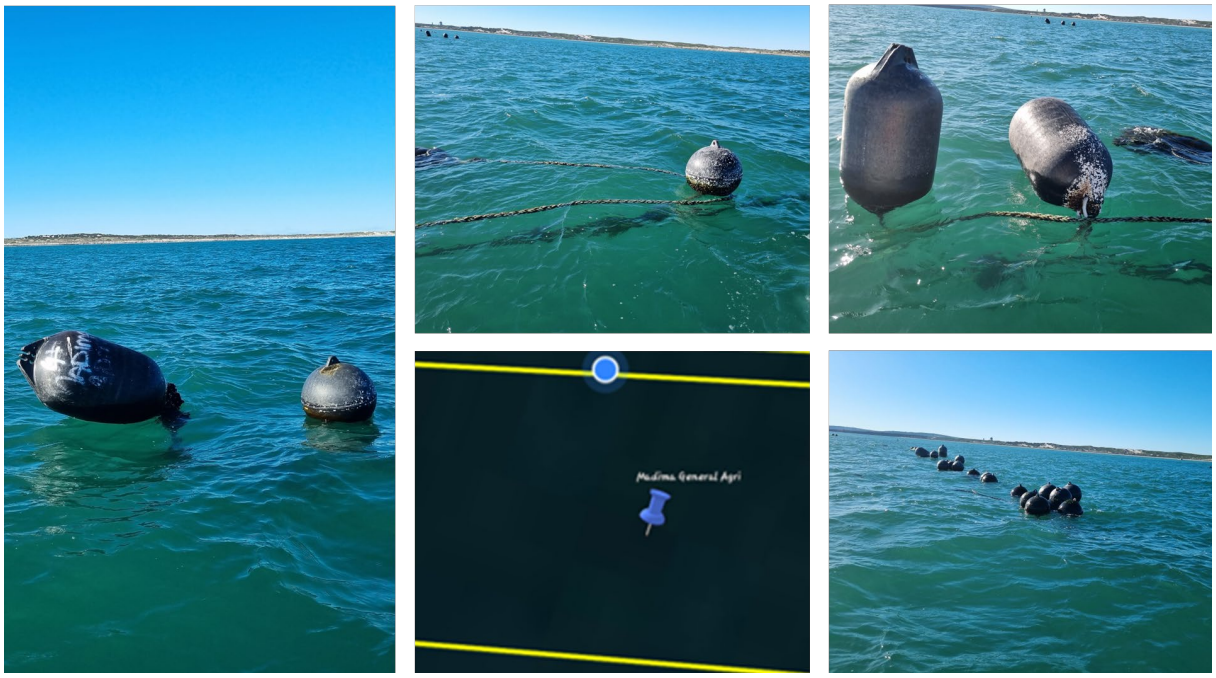


Figure 3.5. MAD Broken lines which were floating above surface water (top left and right). Visible identifying marker on the float and very low biofouling (left). Live Google Earth pin of location of compliance photograph in relation to the MAD Big Bay licence area (yellow boundaries) (bottom middle). A cluster buoys grouped together (bottom right).

3.6.5 MIKA GROWERS (MIK)

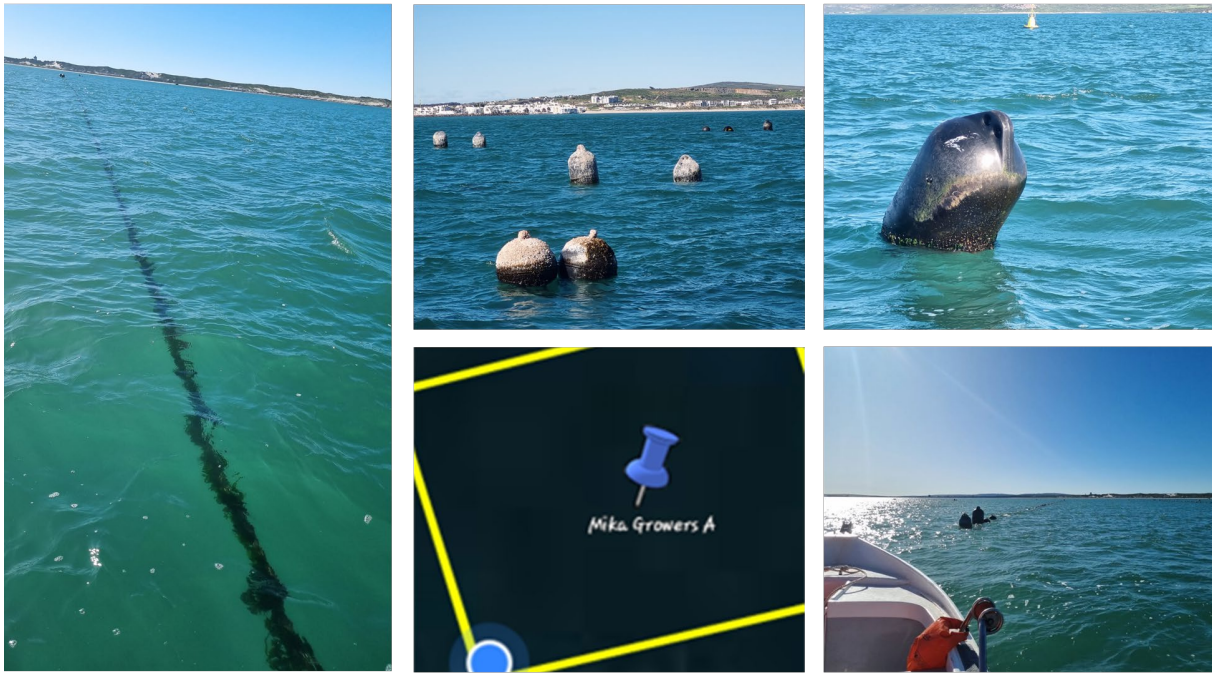


Figure 3.6. Dormant MIK line (left) and buoys with heavy excess biofouling (top middle). Faded identifying marker on end float (top right). Live Google Earth pin of location of compliance photograph in relation to the MIK Big Bay licence area (yellow boundaries) (bottom centre).

3.6.6 MMMAgri Consult (MMM)

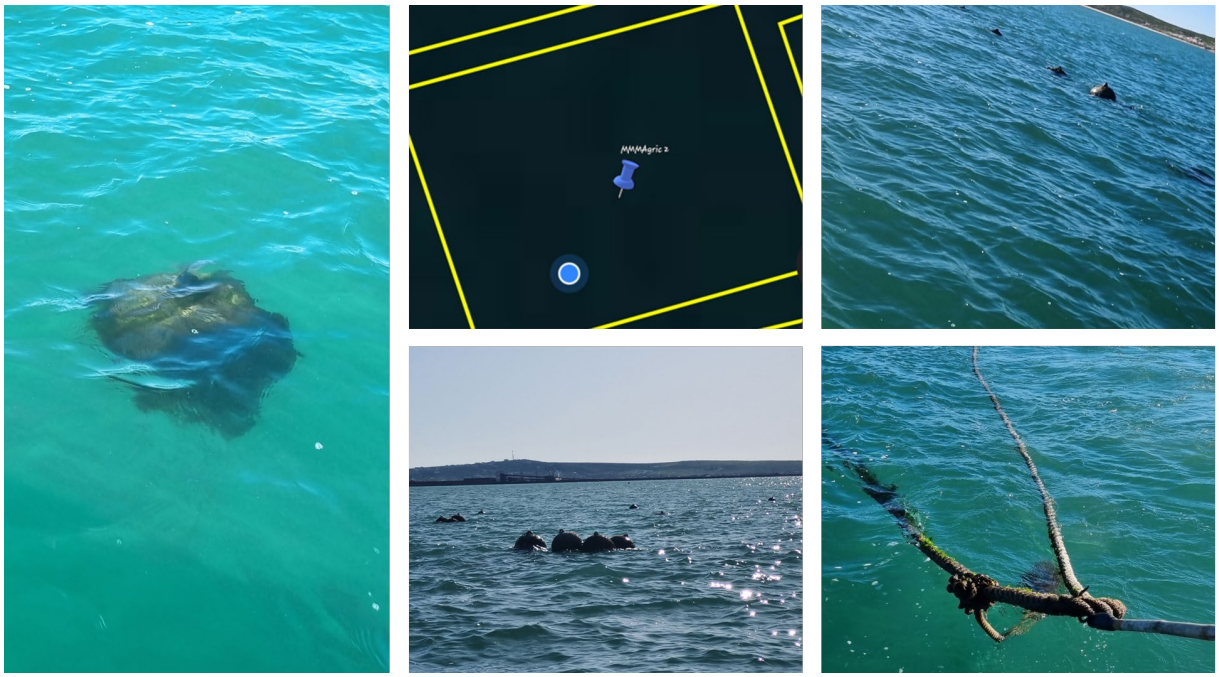


Figure 3.7. A MMM buoy under water with excess algae (left). Live Google Earth pin of location of compliance photograph in relation to the MMM Big Bay licence area (yellow boundaries) (top middle). A very low line (top right), cluster of buoys (bottom middle) and broken line (bottom right).

3.6.7 Pluto Mussel & Trading (PLU)

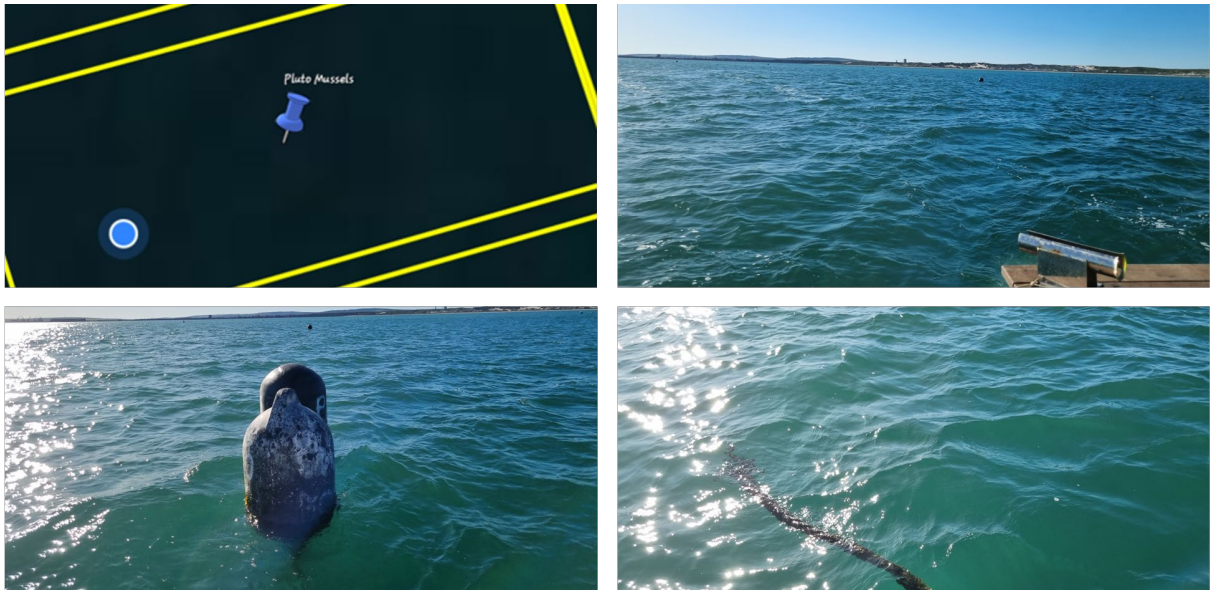


Figure 3.8. Live Google Earth pin of location of compliance photograph in relation to the PLU Big Bay licence area (yellow boundaries) (top left). Lines missing or sunken (top right), end floats very close to each other (bottom left) and a broken line (bottom right).

3.6.8 SIMUNYE MUSSELS (SIM)

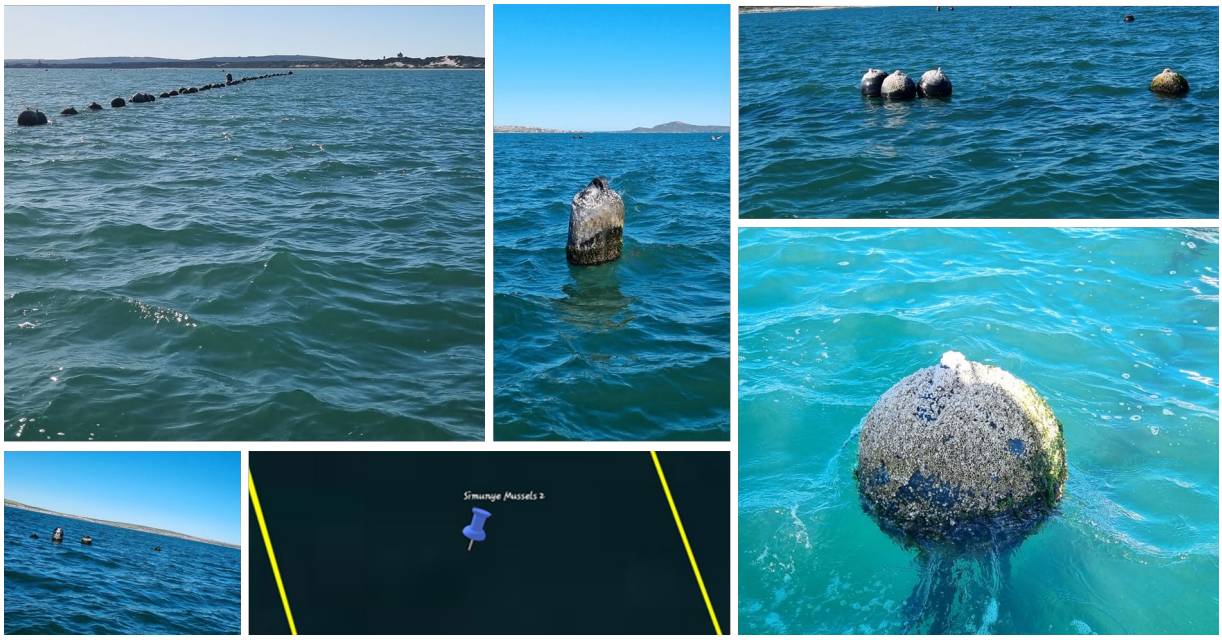


Figure 3.9. A SIM line observed to be taut, straight, suitably floated and marked with unique identifiers (top left). An end float with faded identifying marker (top middle), buoys in groups of 3 (top right), a sunken line (bottom left). Live Google Earth pin of location of compliance photograph in relation to the SIM Big Bay licence area (yellow boundaries) (bottom middle). A buoy with excess biofouling (bottom right).

3.6.9 SOUTHERN ATLANTIC SEA FARMS 2 (SASF2)

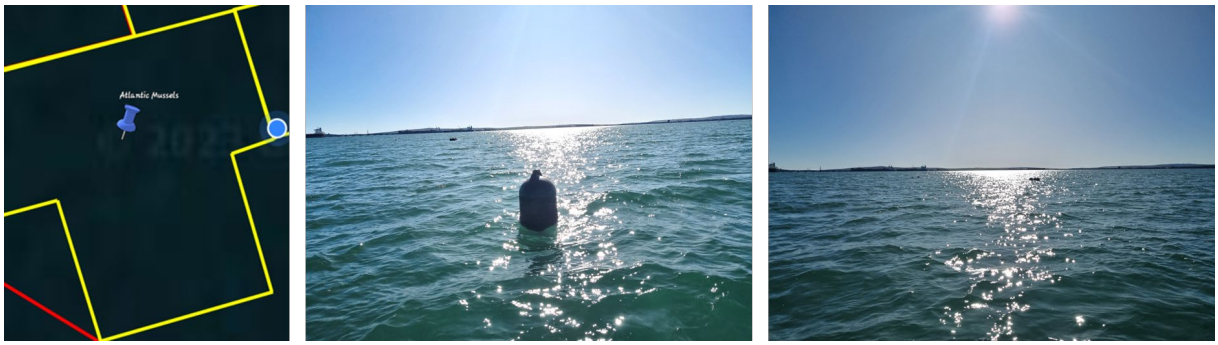


Figure 3.10. Live Google Earth pin of location of compliance photograph in relation to the SASF2 Big Bay licence area (yellow boundaries) (left). No infrastructure or product was observed but unidentified end float (middle) and 3 buoys were floating about on this farm (right).

3.6.10 ULWAZI KUKUTYA (ULW)

Figure 3.11. Line 3 was the only line existing on the ULW farm and was sunken (left and right).

3.6.11 WEST COAST OYSTER GROWERS (WCOG)

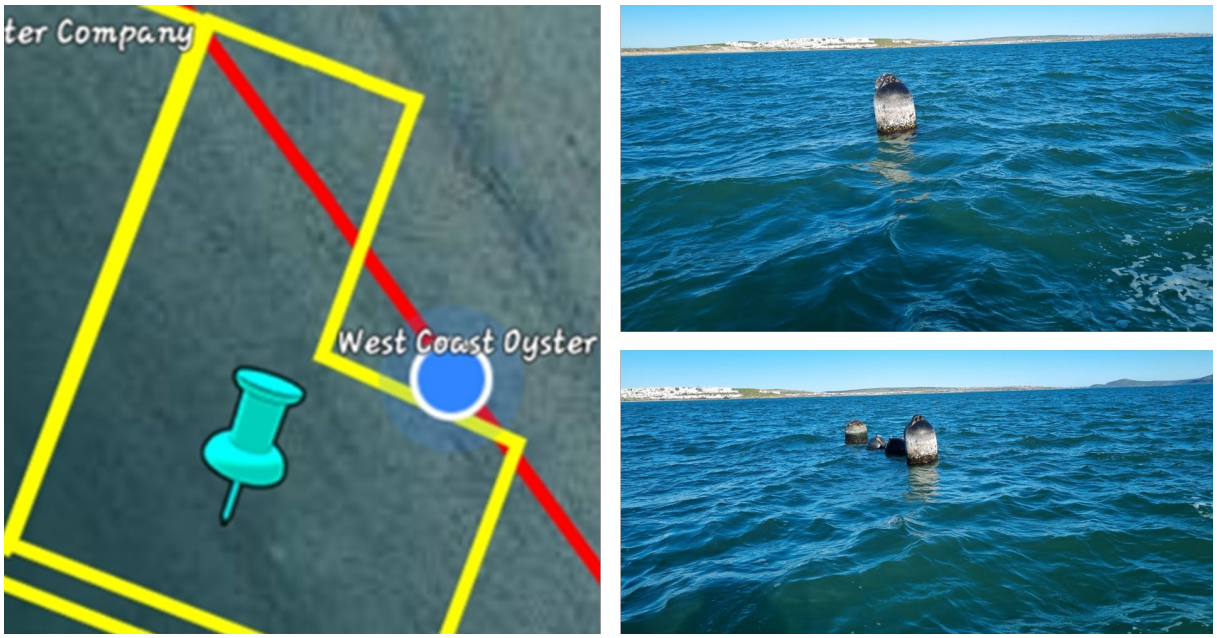


Figure 3.12. Live Google Earth pin of location of compliance photograph in relation to the WCOG Big Bay licence area (yellow boundaries) (left). End floats with no lines and identifying markers have faded and the rest of the lines were missing sunken (top and bottom right).

3.7 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 the 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 July 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 for progress made up to 20 July 2023 with maintenance plans are given under Section 3.7.1 (for SBOC) and Section 3.7.2 (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 20 July 2023 are provided in Section 3.7.3.

Southern Atlantic Sea Holdings (SASH) group have recently entered business rescue through Clarita's Business Rescue, Restructuring and Advisory. Clarita's has therefore taken over many aspects of farm operations, and the progress on maintenance of these farms is discussed in Section 3.7.4.

3.7.1 Saldanha Bay Oyster Company

The remaining maintenance tasks involve the retrieval and removal of two buried lines, along with their associated buried mooring buoys. Additionally, there was a need for biofouling removal and mooring inspections. Only one these buried lines along with the related infrastructure was found on the 4th of July 2023, and therefore, the necessary maintenance progress remains the same as the May 2023 audit period (Table 3.3). The next inspection is scheduled for August 2023, although the specific dates are yet to be confirmed.

Table 3.3. Maintenance progress for SBOC, July 2023.

Maintenance item	Initial number	Number addressed	Total remaining
Longlines for removal	11	9	1
Buoys to be cleaned of biofouling	32	30	2
Subsurface inspection and cleaning of biofouling (shackles, mooring lines, and chains)	32	30	2
Divers inspect moorings to ensure that they have not moved and are in place	24	22	2

3.7.2 Blue Ocean Mussels

Since the last update in July 2023, the raft that needed reconstruction has been fully restored. There has been a good progress thus far, three rafts with grouped moorings were successfully separated and four are remaining (Table 3.4). Blue Ocean Mussels will successfully bring their farm back into compliance with the operational guidelines once these mooring have been separated.

Table 3.4. Maintenance progress for BOM, July 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

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
- 39 & 40

The following rafts were successfully separated:

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

3.7.3 REQUA ENTERPRISES

On June 8, 2023, Requa was issued a letter in accordance with the instruction of the Aquaculture Management Committee (AMC). The letter was issued due to their failure to submit a maintenance plan to the ADZ ECO by March 17, 2023. This plan was to outline the actions to be undertaken for planned maintenance and to provide a timeline with estimated completion dates. At the AMC meeting held on 29 May 2023, it was agreed that immediate steps need to be taken to retrieve the sunken infrastructure, and that a maintenance plan must be produced by 30 June 2023. This plan must take into consideration the ECO recommendations as detailed below, and must indicate the time frames of implementation, as well as a methodology to track the outstanding infrastructure:

- Locating and removing sunken longlines (note that these may be buried under sand now due to the swells and currents in Outer Bay North).
- Retrieval and cleaning of biofouling from sunken floats and end floats (end floats are attached to mooring blocks).
- Cleaning biofouling from chains and shackles attached to moorings.
- Locating moorings (the location of the moorings should be present in the mooring plan that would have been submitted to the Department for Requa to receive their Mariculture Right and/or initial aquaculture permit).
- Mooring inspections (by divers to determine integrity of infrastructure).

Additionally, the AMC requested that Requa completes or shows progress on restoring their farm on 31 July 2023 and then ongoing monthly reports should be supplied to the ADZ ECO to track progress.

Requa failed to submit their maintenance plan on the 30 June 2023. The ECO sent an email on the 4 July 2023 notifying them of the missed deadline and indicated that this matter will be escalated to the DFFE Legal team, who will proceed with necessary enforcement actions.

Requa responded to the email on the same day. The farm owners indicated that their diving inspection service provider has promised to submit the maintenance plan on their behalf. It is very doubtful that they will be able to show or provide progress updates for the restoration of their farm as the maintenance plan was not submitted. The deadline of the 31 July 2023 was missed at the time of drafting this July Audit Report.

3.7.4 Southern Atlantic Sea Holdings

SASH Group have a maintenance agreement with 10 farms in the Big Bay precinct and the summary update of the general condition of the farms observed during the July 2023 Audit:

- A major concern was the excessive biofouling on most of the infrastructure (including floats and buoys), which can negatively impact mussel growth and lead to potential operational issues. Addressing the biofouling is essential to maintain a healthy and productive mussel farm and to avoid lines from breaking.
- Additionally, there is a notable discrepancy in the number of lines on each farm, with many missing lines compared to the expected total.
- The condition of the lines varies, with a considerable portion not being taut and straight. Interestingly, even farms that managed to maintain taut and straight lines were still affected by fouling. Many lines have completely or partially sunk, requiring urgent harvesting due to their substantial weight.
- A common issue observed is the absence of one or both end floats on the lines. Additionally, submerged buoys are frequently seen, with their attached ropes often out of sight. Some farms have clusters of buoys, grouped together in three or more.
- There is also a concern regarding broken lines floating in the water, which poses a potential risk of entangling marine life, particularly whales.
- Furthermore, the identifying markers on the end floats are often obscured by bird droppings, biofouling, or have generally faded over time.
- Ultimately, the encroachment of infrastructure is affecting farms that are not under its ownership.

Each individual farm owner was issued with a pre-notice coastal protection on the 10 July 2023 by the DFFE Law Reform. These notices provide measures for protecting the coastal environment of activities emanating from the ADZ project that may have detrimental effect and creates procedures for assessing and regulating such activities.

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. In light of this and given the extent of infrastructure that appears to be missing or sunken, the ECO strongly recommends that the DFFE Project Management Team undertake a dive inspection to assess the below surface situation in the Big Bay precinct.

3.8 FARM MONITORING REPORTS (FMRS)

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 July 2023 audit period, there was a notable improvement in meeting the FMR submission deadline. As of the report's preparation, 21 out of 24 FMRs were submitted within the expected timeframe, and there were no pending outstanding submissions. Three submissions were made two days late, but all farms with sales provided supporting documents, except for the ones under SASH maintenance agreement (as shown in Table 3.5). Currently, none of the SASH farms conduct any maintenance or inspection.

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	2023/07/14	yes	yes
Aqua Foods SA	Small Bay	Mussels/ oysters	2023/07/17	yes	yes
Aqua Foods SA	Big Bay	Mussels/ oysters		N/A – no active farming	
Blue Lagoon Products	Big Bay	Oysters	2023/07/10	no sales	no
Blue Ocean Mussels	Small Bay	Mussels	2023/07/17	yes	yes
Blue Sapphire Pearls	Big Bay	Mussels	2023/07/16	yes	yes
Blue Sapphire Pearls	Small Bay	Oysters	2023/07/16	yes	yes
Cex Enterprises	Big Bay	Mussels		Not operational	
Imbaza Mussels	Small Bay	Oysters	2023/07/13	yes	yes
K2019005713	Big Bay	Mussels	2023/07/10	no sales	no
K2019005725	Big Bay	Mussels	2023/07/10	no sales	no
Lagoon Aqua Farm	Big Bay	Mussels	2023/07/10	no sales	no
Madima General Agriculture Trading	Big Bay	Mussels	2023/07/10	no sales	no
Mika Growers	Big Bay	Mussels	2023/07/10	no sales	no
Mmmagri Consult	Big Bay	Mussels	2023/07/10	no sales	no
Pluto Mussels and Trading	Big Bay	Mussels	2023/07/10	no sales	no
Requa Enterprises	North Bay	Mussels		N/A – no active farming	
Saldanha Bay Oyster Company	Small Bay	Oysters	2023/07/12	yes	yes
Saldanha Bay Oyster Company	Big Bay	Oysters		N/A – no active farming	
Salmar Trading	Small Bay	Oysters	2023/07/13	yes	yes
Simunye Mussels	Big Bay	Mussels	2023/07/10	no sales	no
Southern Atlantic Sea Farms 1	Big Bay	Mussels	2023/07/10	no sales	no

Farm name	Location	Species	Date	Supporting Docs	Visual Inspection Log
Southern Atlantic Sea Farms 2	North Bay	Mussels	2023/07/10	no sales	no
Southern Cross Salmon Farm	North Bay	Mussels	2023/07/10	no sales	no
Ulwazi Kukutya	Big Bay	Mussels	2023/07/10	no sales	no
Wada Projects	Big Bay	Mussels		Not operational	
Well Done Works	Big Bay	Mussels		Not operational	
West Coast Aquaculture	Small Bay	Mussels/ oysters	2023/07/10	no sales	no
West Coast Oyster Growers	Big Bay	Mussels/ oysters	2023/07/10	no sales	no
West Coast Oyster Growers	Small Bay	Oysters/ mussels	2023/07/10	yes	no
Xesibe Aquaculture	North Bay	Mussels	2023/07/10	no sales	no

3.9 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.

As it stands for now, beach monitoring and clean up by the aquaculture industry now include Wayne Maree from Aquafoods SA who has volunteered to clean up Big Bay precinct on the 5 July 2023 (Table 3.6) Ernie Malan of SASH group is no longer responsible for these clean-ups in Big Bay and Outer Bay North. This responsibility has been passed to the Claritas rescue practitioners. Upon securing funding from an investor, Claritas was able to clean up Spreeuwalle Beach on the 20 July 2023 (Figure 3.13).

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

Responsible party	Group/affiliation	Precinct	Beach	Frequency
Wayne Maree	Aquafoods SA	Big Bay (BB)	Spreeuwalle – Paradise beach	Twice a month
Armand van Niekerk	Claritas Business Rescue, Restructuring and Advisory			Bi-weekly
TBC	TBC	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
SJ Poggenpoel	Blue Ocean Mussels (BOM)	Small Bay (SB)	Marcus Island – SB side	Monthly

Figure 3.13. Beach clean-up evidence by Claritas Business Rescue, Restructuring and Advisory.

In Small Bay, the waste collected primarily consists of litter and general waste, with only a small portion originating from the aquaculture industry (Figure 3.14). On the other hand, in Big Bay, the majority of 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 3.15). 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 due to the fact that the SASH group undergoing business rescue through Claritas.

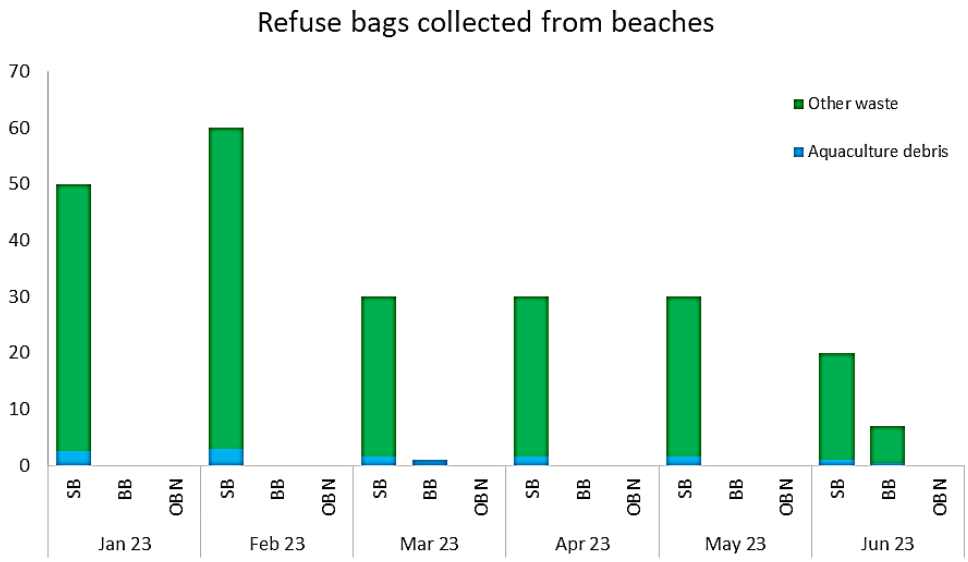


Figure 3.14. Waste collected in refuse bags from beaches in the various precincts. Total waste collected and portion of waste constituting aquaculture debris is presented. For the period of January 2023 to May 2023, no data has been provided for the Big Bay (BB) and Outer Bay North (OBN) precincts. However, there is data available for the month of March and June 2023, but only for the Big Bay precinct (BB).

Figure 3.15. 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.

3.10 Beach inspection by ECO

Spreeuwalle beach was inspected by the ECO during the July 2023 site inspection whilst on the boat (Figure 3.8). During the beach inspection seven black torpedo floats were observed (Figure 3.17). Moreover, several floats were floating about in the surface waters. No identifying

features were visible on any of the items. The famer owners/operators and business rescue practitioners have been notified of the existence and location of this equipment and plans have been made to remove it.

Figure 3.16. Spreeuwalle beach with black torpedo floats.

Figure 3.17. Several photographic evidence showing floats in bay with no identifying features.

3.11 INCIDENTS DURING THE LAST MONTH

On the 11 July 2023, an incident report (IR July 23-01) was logged that a yellow float from SBOC and three floats from the SASH group were observed on Langebaan beach near Pearly's restaurant and the lagoon opening. On the 12 July 2023, another incident report (IR July 23-02) reported black, blue, and orange floats from the SASH farm, specifically WCOG, in the water and on the beach. On 20 July 2023, IR July 23-03 was logged for seven black floats seen on Spreeuwalle Beach during a site inspection. These incident reports highlight the presence of various floats from different farms in the Big Bay precinct, raising concerns about the potential impact on the environment and marine life in the affected areas (Figure 3.17). It is

important for farm operators or the Claritas team take appropriate actions to prevent these occurrences in the future. The farm operators were notified about these incidents.

On July 29, 2023, a local resident reported vehicular damage to the vegetated supratidal beach platform in Big Bay, Saldanha (IR July 23-05). The resident reported that the tracks were left by vehicles associated with the aquaculture industry. It is worth noting that access to this area is restricted to a single point (Sunrise Energy). As a result, whomever is responsible for controlling the entrance to this area likely has records that could be relevant to the investigation. Additionally, on the same day, a longline with floats was observed in the process of washing ashore in the same area (IR July 23-05, Figure 3.19).

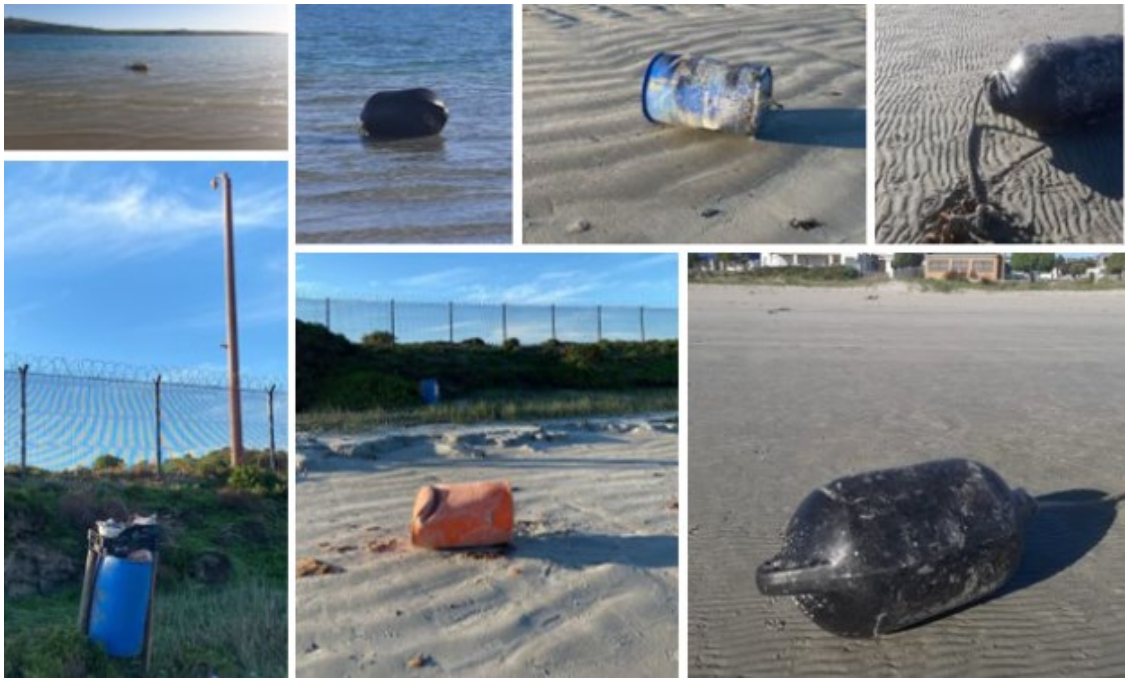


Figure 3.18. Several floats found on Langebaan Beach, Saldanha.

Figure 3.19. Vehicular damage to the vegetated supratidal beach and a line with floats washing ashore.

4 ADZ MANAGEMENT

4.1 BAY USER SAFETY

The ADZ 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). Before the AtoN plan can be implemented, a Navigational Risk Assessment needs to be conducted for Saldanha Bay. The initial workshop for stakeholder engagement on this Risk Assessment was originally planned for 14-15 June 2023; however, it has been rescheduled and will now take place from the 11-12 October 2023.

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.

	Graded production					
ADZ Precinct	**Monthly graded production June 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)**
Small Bay	289	2847	1936	2921	2621	1669
Big Bay	0	189	240	480	700	131
Outer North Bay	0	433	297	330	175	0
Outer South Bay	-	-	-	-	-	–
Total graded	**289**	**3 468**	**2473**	**3731**	**3496**	**1799**
Approximate ungraded production	537	6 497	4 707	7 228	6664	3338

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 DFFE Branch Fisheries Management engage with NatGro Organics to identify their specific concerns for composting aquaculture biological waste and attempt to find a solution to these concerns.
- The Incident Report form should be modified to enhance its user-friendliness for the public when making reports. It is recommended to include a dedicated signature block for the person who witnessed the incident, in addition to the existing blocks for the responsible person and the ECO.
- Once the Navigational Risk Assessment is concluded, the AtoN Plan should be finalised, and the responsible parties 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 SASH 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.
- 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.

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: Fisheries Management 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.

6 CONSULTATIONS AND COMMUNICATIONS

6.1 CONSULTATIONS

1. Copies of comments received:
   - Communications register July 2023.
   - Documents register July 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 July 2023 audit period are presented in Table 6.1 below.

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

Individual	Organisation	Subject
Basson Geldenhuys	Department of Public Works	EMPrs for Pepper Bay Jetty
Michelle Pretorius	DFFE: Operation Phakisa Delivery Unit	Update on Requa, SBOC and BOM maintenance plans
Kevin Ruck	Blue Sapphire Pearls	RE: Site inspection 15 June 2023: infrastructure found on the beach
Amy Wright	Simunye Mussels	FW: Follow up on the summary from Friday meeting with BR
Julia Ndou	Saldanha ADZ ECO	Request for SOPs for Saldanha Bay
Julia Ndou Kishan Sankar	DFFE: Sustainable Aquaculture Management (SAM)	K13: Consent for rope age details
Julia Ndou Kishan Sankar	Saldanha ADZ ECO DFFE: SAM	K25: Consent for rope age details
Julia Ndou Kishan Sankar	Saldanha ADZ ECO DFFE: SAM	Xesibe Aquaculture: Consent for rope age details
Julia Ndou Kishan Sankar	Saldanha ADZ ECO DFFE: SAM	Ulwazi Kukutya: Consent for rope age details
Julia Ndou Kishan Sankar	Saldanha ADZ ECO DFFE: SAM	Southern Cross Salmon Farm, Southern Atlantic Sea Farm 1 & 2: Consent for rope age details
Julia Ndou Kishan Sankar	Saldanha ADZ ECO DFFE: SAM	Simunye Mussels: Consent for rope age details
Julia Ndou Kishan Sankar	Saldanha ADZ ECO DFFE: SAM	MMMAgri: Consent for rope age details

Individual	Organisation	Subject
Julia Ndou Kishan Sankar	Saldanha ADZ ECO DFFE: SAM	Mika Growers: Consent for rope age details
Julia Ndou Kishan Sankar	Saldanha ADZ ECO DFFE: SAM	Madima General Agriculture Trading: Consent for rope age details.
Julia Ndou Kishan Sankar	Saldanha ADZ ECO DFFE: SAM	Pluto Mussels and Trading: Consent for rope age details
Julia Ndou Kishan Sankar	Saldanha ADZ ECO DFFE: SAM	Blue Sapphire Pearls: Consent for rope age details
Julia Ndou	Saldanha ADZ ECO	ADZ ECO reports for June 2023
Pieter Chris Blom	South African Maritime Safety Authority (SAMSA)	Navigational risk assessment plan presentation
Julia Ndou	Saldanha ADZ ECO	BSASA beach clean-ups
Sisanda Dalasile	Saldanha ADZ Secretariat	33_24 July AMC meeting Agenda
Michelle Pretorius	DFFE: Operation Phakisa Delivery Unit	Minimum infrastructure template
Julia Ndou	Saldanha ADZ ECO	Blue Ocean Mussel: Site specific EMPr
Monique Coetzee	Western Cape government: Waste Policy and Minimisation	Aquaculture Development Zone
Kishan Sankar Maxcine Kater	DFFE: SAM	SASH business rescue weekly meetings: Progress feedback
Jonathan Venter	Saldanha Bay Oyster Company	RE: Yellow float in Langebaan beach
Sisanda Dalasile	Saldanha ADZ Secretariat	2023 Saldanha bay chemical survey
Sisanda Dalasile	Saldanha ADZ Secretariat	Request for Food Safety Office reports
Pieter Chris Blom	SAMSA	PAWSA Risk Assessment: Port of Saldanha - Online meeting of 18 July 2023 and request for information
Michelle Pretorius Dr Lizeth Botes	DFFE: Operation Phakisa Delivery Unit Blue Ocean Mussel	Blue Ocean Mussel: Site specific EMPr & Long-lines doc
Kevin Ruck	Blue Sapphire Pearls	BSP response on Coastal Notice
Kishan Sankar	DFFE: SAM	Request for rope ages, maintenance records and maintenance schedule
Armand van Niekerk	Altitude Advisory International (Pty) Ltd	RE: Black float in Blue Bay Lodge
Julia Ndou	Saldanha ADZECO	FW: Biowaste from aquaculture farms
Julia Ndou	Saldanha ADZECO	Marine mammal entanglement risk in Saldanha Bay following winter swells
Michelle Pretorius	DFFE: Operation Phakisa Delivery Unit	Sci publication from the DFFE relevant to the Saldanha Bay ADZ and other stakeholders
Julia Ndou	Saldanha ADZECO	Feedback: Waste Policy and Minimisation Department
Nicole Limberis	DFFE: Legal Officer	Intent of coastal protection notices

forestry, fisheries & the environment

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