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

SALDANHA BAY AQUACULTURE DEVELOPMENT ZONE (ADZ)

ENVIRONMENTAL CONTROL OFFICER (ECO)

MONTHLY SUMMARY REPORT 8



November 2022



SALDANHA BAY AQUACULTURE DEVELOPMENT ZONE (ADZ) ENVIRONMENTAL CONTROL OFFICER (ECO) MONTHLY SUMMARY REPORT 8

November 2022

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 Research & Monitoring (Pty) Ltd
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
FSO	Food Safety Office
IR	Incident Report
LST	Lipophilic Shellfish Toxin
MLRF	Marine Living Resources Fund
NC	Non-compliant
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

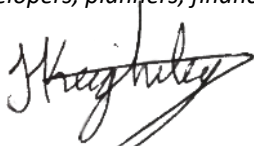
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Details of the Independence in terms of Chapter 5 of the National Environmental Management Act of 1998)

Box 1: Declaration of Independence of Environmental Control Officer

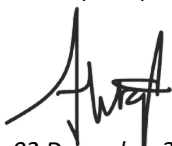
I, Jenna May Keightley hereby declare that I have no conflicts of interest related to the work of this report. Specifically, I declare that I have no personal financial interests in the property and/or development being assessed in this report, and that I have no personal or financial connections to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



02 December 2022

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.



02 December 2022

Compliance with Appendix 7, General Notice (GN.) 1224 of 2020

In terms of the requirements of the amended 2014 Environmental Impact Assessment (EIA) Regulations (13 November 2020) and the recommendations for environmental audits under Regulation 25 (Table 1), the following should be noted:

- Anchor follows the prescribed format for audit reports listed in Appendix 7 of GN. 1224 of 2020.
- 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 25 of GN. 1224 of 2020 (such as seeking amendment to the EMPr or associated licences/permits). Ensuring compliance is the obligation of the proponent.

Table 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 and Section 2
Methodology adopted in preparing the environmental audit report.	Section 6
Evaluation of the ability of the EMPr to sufficiently: <ol style="list-style-type: none"> 1. provide for continued avoidance, management and mitigation of environmental impacts and at closure. 2. Ensure compliance with EA, EMPr and if applicable, closure plan. 	Section 7
Description of any assumptions, uncertainties or gaps in knowledge.	Section 2.4

1 PURPOSE OF THIS REPORT

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 only and summarised monthly audits of the ADZ and individual farms. 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.

2 INTRODUCTION AND BACKGROUND

Mussel farming has occurred in Saldanha Bay since 1981 and was subsequently followed by oyster farming in the early 2000s. In order to conduct aquaculture activities, potential aquaculture farmers must conduct an Environmental Impact Assessment (EIA) and obtain an Environmental Authorisation (EA) from the Department of Forestry, Fisheries and the Environment (DFFE). As this process can be arduous and costly it presents a barrier to entry to the aquaculture industry. To facilitate investment and development of additional aquaculture in the Bay, the then Department of Agriculture, Forestry and Fisheries (DAFF)¹ proposed the establishment of a sea-based Aquaculture Development Zone (ADZ) in Saldanha Bay.

The Branch Fisheries Management (formally DAFF now DFFE) 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) 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.

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

¹ Following a Ministry reshuffle in mid-2019, Fisheries and Forestry has merged with The Branch Environment under the Ministry of Forestry, Fisheries, and the Environment (DFFE).

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.

The Marine Living Resources Fund (MLRF)² under the auspices of DFFE: Fisheries Management has appointed Anchor Research & Monitoring (Pty) Ltd (Anchor)³ as ADZ 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.

Table 2. 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 March 2025

2.1 Site 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.

² Schedule 3A Public Entity established in terms of the Public Finance Management Act, 1999 (Act No 1 Of 1999).

³ Part of the Anchor group of companies.

2.2 Project Description

The Saldanha Bay ADZ comprises 4 precincts, namely Small Bay (SB), Big Bay (BB), Outer Bay North (OBN), and Outer Bay South (OBS) (Figure 1). The BA Report summarised the scope for expansion in the ADZ and comprised a mix of finfish and bivalve farms (Table 3). Details of each existing lease are depicted in Figure 2 and Figure 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).

Table 3. ADZ precincts in Saldanha Bay and area suitable for cultivation.

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

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.

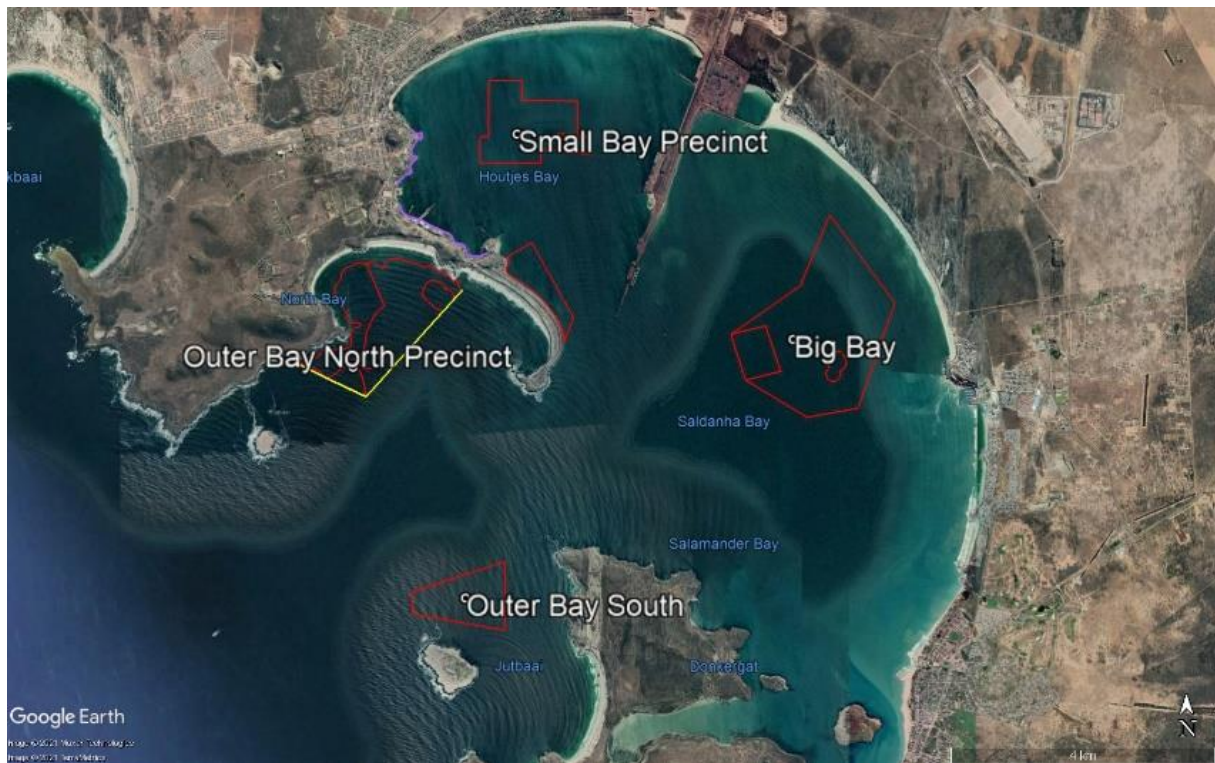


Figure 1. Saldanha Bay ADZ precincts.



Figure 2. (Left) Bivalve culture in SB and (right) mixed bivalve and finfish culture in BB.

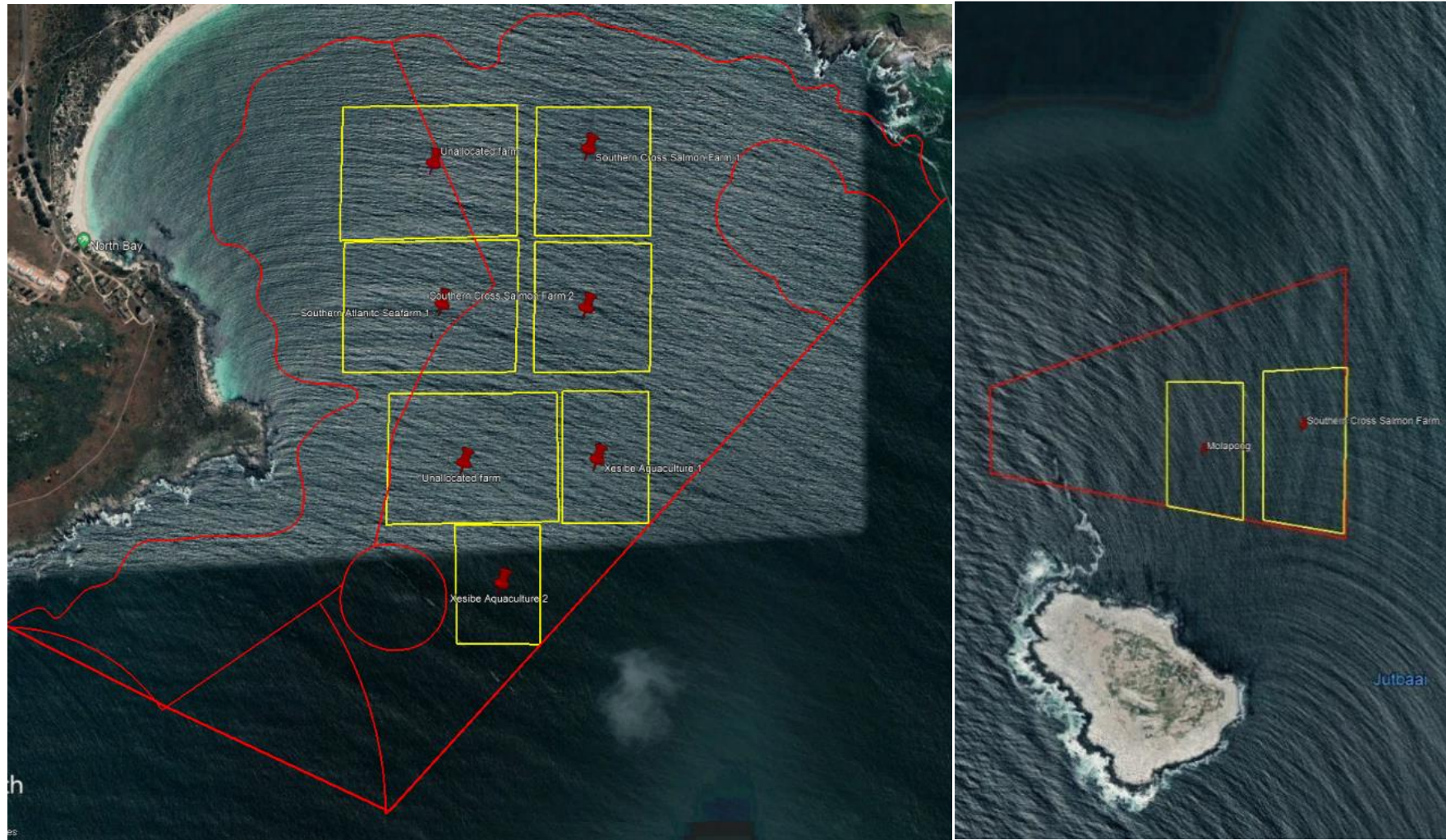


Figure 3. (Left) Bivalve culture in OBN and (right) finfish culture in Outer Bay South.

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 November 2022 is presented in Table 4.

Table 4. Operators in the Saldanha Bay ADZ.

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

2.4 Limitations and Assumptions of the Audit

The audit findings are based on information relayed in documentation, during interviews as well as the 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 about 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 are considered responsible for compliance for this project including DFFE: Chief Directorate Aquaculture and Economic Development, DFFE: Regulatory Compliance and Sector Monitoring under Chief Directorate Sector Compliance, and Chief Directorate Sector Enforcement.

3 INCIDENTS DURING THE LAST MONTH

One incident was reported in the November 2022 audit period. Line 9 on MMMAgri farm in BB was cut by the propeller of a ski-boat or similar vessel on 8 November 2022 (IR-Nov 22-01). No production line was attached to the top line at the time of the incident and therefore, the only environmental concern was risk of entanglement in the cut line. The line was immediately removed from the environment by the farm management operator. The ECO notified the South African Maritime Safety Authority (SAMSA) and TNPA of the cut line incident and pointed out that multiple similar incidents have occurred in the ADZ. The ADZ ECO also stressed the importance of demarcating the ADZ with suitable navigational markers and implementing the SAMSA Aids to Navigation plan to avoid future incidents.

4 COMMUNICATIONS RECEIVED DURING THE LAST MONTH

Communications received by the ADZ ECO during the November 2022 audit period included:

- Distributing the ADZ ECO reports to AMC, CF, Operators and Director Compliance.
- Beach monitoring and clean-up feedback for SB beaches from Imbaza Mussels.
- Notification of cut-line incident on MMMAgri.
- Liaison with SB Operators regarding infrastructure increase requests and engagements with the AMC.
- Notifying SAMSA and TNPA of cut-line incidents that have occurred in the Bay.
- Mooring co-ordinates from WCOG and WCA.

- Follow up with TNPA regarding increase in lead observed during routine Food Safety monitoring of tissue samples.
- DFFE: Food Safety Office notifications relating to microbiological and biotoxin testing.
- Co-ordinating site inspections with various Operators.
- Notifying CF, Operators, and AMC of Karpowership EIA for Saldanha Bay open for public comment.
- Liaison with BOM regarding progress with the maintenance plan.
- Liaison with SBOC regarding progress with the maintenance plan.
- Aids to Navigation plan, draft 3 received and distributed to AMC.
- Communications with TNPA regarding Aquaculture leases.
- Communications relating to Endangered, Threatened and Protected species data collection and EA and EMPr training material.
- Communications with TNPA regarding dredging programme.
- Draft letters to Operators regarding infrastructure increases.
- Receiving and distributing the fifth quarterly monitoring report.
- Notification of closure of BB and OBN due to non-compliance with monitoring and reporting procedures.
- Liaison with Operator regarding slack line and resolution of the issue for Mika farm.

5 SIGNIFICANT DEVELOPMENTS IN THE ADZ IN THE LAST MONTH

5.1 Environmental Monitoring

Specialist Environmental Monitoring Quarterly report number 5 was produced during the month of November 2022. The report discussed the retrieval, maintenance and redeployment of oxygen probes and nitrate sensors as conducted for this quarter. Proposed servicing schedule and servicing methodologies were outlined in the monitoring report. The report also discusses the progress with updating the Sampling Plan. This report was distributed to the AMC, CF, and Operators on 1 December 2022 and may be seen for further detail on Environmental Monitoring.

5.2 Monthly ECO audits

This report details ADZ-level compliance on operational phases and the monitoring measures as per Table 5-1 and Table 7-2 of the ADZ EMPr. The ADZ scored an overall compliance of 87% for the audit period of November 2022 indicating **no change** in compliance percentage since the previous audit in October 2022 (Table 5, Figure 4). Although no change in compliance was observed there was progress towards improving the status of three partial compliances (see section 2.1 above for detail). The ADZ has maintained a high level of compliance (>80%) with the audit standard for 2022 and the Operators and Management team should be commended.

Table 5. Compliance over time, 2022.

Audit Date	Total applicable Conditions	Compliant	Partially Compliant	Non-compliant	Not applicable	To be confirmed
26/1/2022	23	22	1	0	3	0
24/2/2021	23	22	1	0	3	0
23/3/2022	23	20	3	0	3	0
20/04/2022	23	20	3	0	4	0
31/05/2022	25	22	3	0	2	0
01/06/2022	24	21	2	1	3	0
06/07/2022	24	20	4	0	3	0
15/08/2022	24	20	4	0	3	0
14/09/2022	23	19	4	0	4	0
19/10/2022	23	20	3	0	4	0
08/11/2022	23	20	3	0	3	1

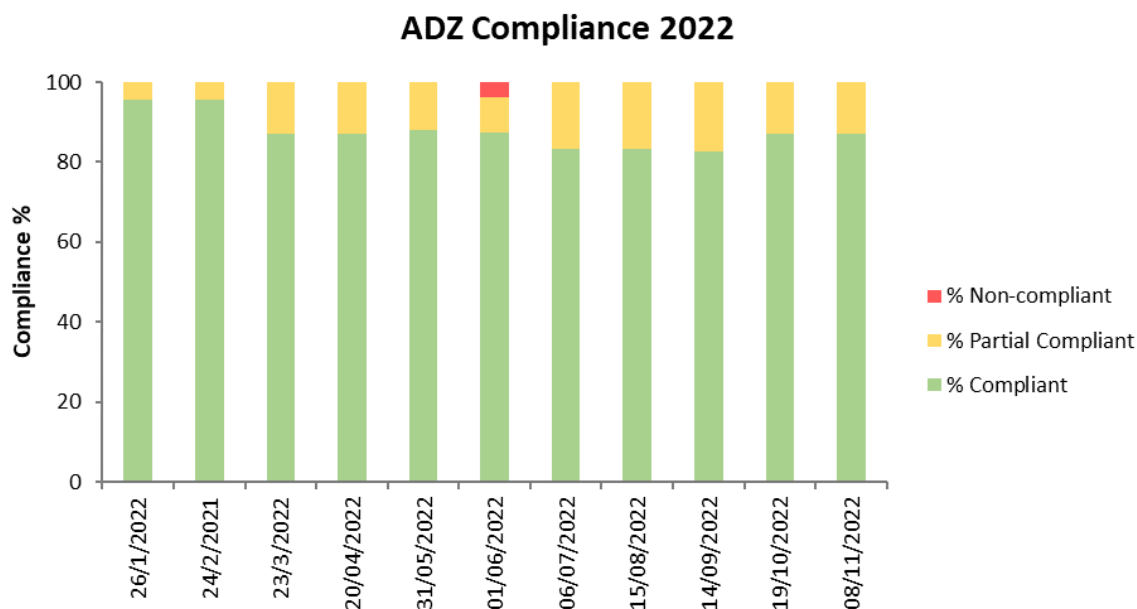


Figure 4. Compliance percentage for ADZ management over time, 2022.

It is noted that DFFE: Shellfish Monitoring and Control Programme (SMCP) issued a notice of non-compliance to Operators relating to condition 106 of ADZ EMP Table 5-2 which stipulates that Operators must “Comply with all management programmes required by DFFE Branch Fisheries Management (e.g. health management programme) including the reporting requirements of these programmes.” On 29 November 2022, DFFE: SMCP issued a notice to Operators to cease harvesting in BB and OBN precincts, due to non-compliance with management programmes and reporting requirements.

No previous partial-compliances were considered resolved for the November 2022 audit period. However, progress was made towards improving the status of three partial compliances, as detailed below.

Although the ADZ is accurately demarcated on charts it is not accurately marked *in situ* using markers compliant with the South African Marine Safety Authority (SAMSA) (EMPr table 5-1, condition 2). The DFFE Branch: Fisheries Management is engaged in discussions with SAMSA to produce an Aids to Navigation (AtoN) Plan for the Saldanha Bay ADZ. The third version of the draft AtoN plan (drafted by SAMSA) was provided to the AMC on 18 November 2022 and discussed during the 29th AMC meeting (24 November 2022). This condition is considered partially compliant as progress is being made on the ADZ AtoN plan and ultimately towards installation of the required markers.

Due to previously observed non-compliances with the infrastructure guidelines discovered during the July 2022 audit period, the ECO requested farm maintenance plans from Blue Ocean Mussels (BOM) and Saldanha Bay Oyster Company (SBOC) on 8 July 2022 (EMPr Table 5-2, condition 6). These maintenance plans were provided on 20 July 2022 and were reviewed by the ADZ ECO and AMC. Comments from this review were incorporated into the maintenance plans, and these plans were implemented from August 2022. Maintenance progress has been observed at both BOM and SBOC farms through the November 2022 audit period. Detailed feedback on the progress with maintenance plans is given in section 3.2 of the ECO site inspection report (Specialist Report no. 2014/8_3b).

Progress was made to improve the partial compliance relating to monitoring the shoreline for aquaculture debris (EMPr table 7-1, condition 2). For the month of November 2022, the whole Northern Beach in SB was cleaned on a weekly basis. Clean-up feedback was provided by Vos Pienaar along with the Farm Monitoring Report (FMR) for Imbaza Mussels on 2 November 2022. No evidence of beach monitoring was provided for BB and OBN precincts, therefore this condition remains partially compliant.

5.3 Bay user safety

An audit was conducted by SAMSA of navigational aids associated with the ADZ in December 2020. The third draft of the SAMSA Aids to Navigation (AtoN) plan was distributed to the AMC on 18 November 2022 and discussed at the 29th AMC meeting (held 24 November 2022). The draft AtoN plan discusses the existing navigational markers in the ADZ and provides recommendations for installation of additional navigational markers. The recommendations are in accordance with SAMSA regulations and ADZ EA stipulations, to ensure that the outer limits of the ADZ are clear to all Bay users. The AtoN plan is still in draft format and further engagements with relevant stakeholders are required. Once the plan is finalised it shall be issued to responsible parties for actioning and to Operators and CF members for information sharing purposes.

5.4 External Audit

None to report at this time. The next external audit is scheduled for February 2023.

6 ECO AUDIT 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; 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 Operators and the AMC.
- Summary report (this report) submitted to the CF, AMC, and Operators.

7 ECO AUDIT RESULTS

7.1 ADZ Management

This evaluation is based on engagements between the ECO and the Branch Fisheries Management officials regarding management measures and implementation thereof. On 18 August 2022 the ADZ Management Committee (AMC) deliberated and endorsed the increase of the ungraded bivalve production threshold from 10 000 tons per annum (tpa) to 12 500 tpa. This decision is based on condition 49 of the EA which allows for phased increase in aquaculture production if monitoring results indicate that the environmental health of the bay has been maintained. The AMC is satisfied that the monitoring results to date indicate that the environmental health is acceptable, however an adaptive management approach and ongoing monitoring is essential to ensure that the environmental health of the bay system is maintained.

The AMC requested that all shellfish Operators wishing to install additional infrastructure to increase their production should submit this request in writing to the AMC by 9 September 2022. Operators were requested to await written approval before installing additional infrastructure. A task team was appointed to revise the infrastructure guidelines, to determine what precincts of the bay would allow for said increases, and to engage with Operators to determine their needs for increases in production. The task team met on 21 September 2022 and 13 October 2022. It was decided that BB and OBN infrastructure increases would be managed with a blanket infrastructure guideline. The decision to have a blanket guideline was made given that the majority of expansion in the ADZ is expected to occur in OBN and BB. Furthermore, the hydrodynamics of BB and OBN allow for more frequent flushing compared to SB and therefore, have a diminished risk of exceeding the permitted levels for anoxia. Due to the sensitive nature of SB and the fact that it is closer to carrying capacity than the other precincts, it was decided that each SB increase request would be handled on a case-by-case basis. To best manage SB, meetings were held with individual SB farmers on 10 October 2022 and 3 November 2022. Feedback on the operator engagements and recommended infrastructure changes was given at the 29th AMC meeting (held 24 November 2022). Letters are being drafted to inform individual Operators of the decisions reached by the AMC. It is anticipated that these letters will be distributed to Operators in early December 2022.

Graded production volumes in the ADZ are recoded on a monthly basis. Production volumes for October 2022 and cumulative production to date supplied by the Branch: Fisheries Management using the approved formula to calculate total ungraded production are presented in Table 6. Production remained below the 10 000 tpa ungraded shellfish (5 000 tpa graded) limit for the first two years of ADZ operation as stipulated in the ADZ EA. Current bivalve production remains below the new 12 500 tpa ungraded (7 500 tpa ungraded) limit. Per the EA from year 3 bivalve production may be increased by an additional 5 000 tons 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 the environmental monitoring which took place in June 2022 as well scientific recommendations, and it will inform the possible increase in production.

Table 6. 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 October 2022	Graded production Feb 2019-Jan 2020 (Year 1 prod)	Graded production Feb 2020-Jan 2021 (Year 2 prod)	Graded production Feb 2021 - Jan 2022 (Year 3 prod)	Graded production Feb 2022 – Jan 2023 (Year 4)
Small Bay	260	2847	1936	2921	2687
Big Bay	114	189	240	480	536
Outer North Bay	0	433	297	330	174
Outer South Bay	-	-	-	-	-
Total graded	374	3 468	2473	3731	2687
Approximate ungraded production	713	6 497	4 707	7 228	5154

7.2 Farm Management

Accurate reporting of operational production data is critical to assess any potential environmental impacts noted in the Saldanha Bay system that may be the result of ADZ operations. Therefore, the ADZ Management Committee (AMC) has decided to focus monthly ECO audits on verifying production values. To this end, 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 separate FMRs for each precinct in which they farm, as well as separate FMRs for each species farmed. Therefore, the feedback given looks at the number of FMRs submitted.

An increase in compliance of meeting the deadline for submission of FMRs was maintained during the October 2022 audit period. Out of a possible 26 FMRs, 23 were submitted on time, all farms with sales provided supporting documents, and late submissions were only one business day late (Table 7).

Table 7. FMR Submission status, supporting production verification documents and visual inspection logs. Late submissions, lack of supporting documents and not providing visual logs are highlighted in red.

Farm name	Location	Species	Date	Supporting docs	Visual Inspection Log
African Olive Trading	SB	Mussels	2022/10/17	yes	yes
Aqua Foods SA	SB	Mussels/ oysters	2022/10/17	yes	yes
Aqua Foods SA	BB	Mussels/ oysters	N/A – no active farming		
Blue Lagoon Products	BB	Oysters	2022/10/14	yes	yes
Blue Ocean Mussels	SB	Mussels	2022/10/14	yes	yes
Blue Sapphire Pearls	BB	Mussels	2022/10/15	yes	yes
Blue Sapphire Pearls	SB	Oysters	2022/10/15	yes	yes
Cex Enterprises	BB	Mussels	Not operational		
Imbaza Mussels	SB	Oysters	2022/10/14	yes	yes
K2019005713	BB	Mussels	2022/09/14	yes	yes
K2019005725	BB	Mussels	2022/09/14	N/A (No sales)	yes
Lagoon Aqua Farm	BB	Mussels	No aquaculture permit		
Madima General Agriculture Trading	BB	Mussels	2022/10/14	N/A (No sales)	yes
Mika Growers	BB	Mussels	2022/10/14	N/A (No sales)	yes
Mmmagri Consult	BB	Mussels	2022/10/14	yes	yes
Pluto Mussels and Trading	BB	Mussels	2022/10/14	yes	yes
Requa Enterprises	North Bay	Mussels	2022/10/17	N/A (No sales)	no
Saldanha Bay Oyster Company	SB	Oysters	2022/10/14	yes	yes
Saldanha Bay Oyster Company	BB	Oysters	N/A – no active farming		
Salmar Trading	SB	Oysters	2022/10/04	yes	yes
Simunye Mussels	BB	Mussels	2022/10/14	N/A (No sales)	yes
Southern Atlantic Sea Farms 1	BB	Mussels	2022/10/14	N/A (No sales)	no
Southern Atlantic Sea Farms 2	North Bay	Mussels	2022/10/14	N/A (No sales)	no
Southern Cross Salmon Farm	North Bay	Mussels	2022/10/14	N/A (No sales)	no
Ulwazi Kukutya	BB	Mussels	2022/10/14	N/A (No sales)	no
Wada Projects	BB	Mussels	Not operational		
Well Done Works	BB	Mussels	Not operational		
West Coast Aquaculture	SB, BB	Mussels/ oysters	2022/10/14	N/A (No sales)	no
West Coast Oyster Growers	BB	Mussels/ oysters	2022/10/14	yes	yes
West Coast Oyster Growers	SB	Oysters	2022/10/14	N/A (No sales)	no
Xesibe Aquaculture	North Bay	Mussels	2022/10/14	yes	yes

7.3 Site Inspections

On-water inspections were conducted for eleven farms on 8 November 2022 ECO. Farms inspected, compliance feedback, and photographic evidence are provided in Table 8 and Section 7.3.1 below.

Table 8. Farms inspected during the November 2022 ECO site inspection and compliance feedback.

Farm name	Location	Species	Date	Comment
Blue Ocean Mussels (BOM)	SB	Mussels	2022/11/08	The majority of BOM rafts are now parallel to the prevailing swell and current (Figure 5). Three rafts remained perpendicular to the prevailing swell and current which increases the risk of them breaking free and causing environmental incident (Figure 6). Multiple repairs, raft rebuilds, and other maintenance has occurred in line with the BOM maintenance plan.
CEX Enterprises	BB	Mussels	2022/11/08	No infrastructure is present in water (Figure 7). CEX Enterprises are awaiting their Aquaculture Permit and have not commenced with farming activities.
Lagoon Aqua	BB	Mussels	2022/11/08	Three lines are present in the water. Infrastructure is marked with unique identifiers (Figure 8). The middle line was observed to be overloaded and sinking and another line was very slack indicating that the mooring had shifted (Figure 9).
Madima	BB	Mussels	2022/11/08	Five lines in the water. All infrastructure was taught, not overloaded, and marked with unique identifiers (Figure 10).
Mika	BB	Mussels	2022/11/08	Twelve lines are in the water. All infrastructure is marked with unique identifiers, lines are not overloaded, and the majority are taught (Figure 11). Line 3 on Mika was observed to be bowed and slack, indicating that the mooring has shifted and needs to be moved back to its original position (Figure 12). The farm management operator was informed, the line was subsequently harvested and will be pulled taught in early December 2022.
Pluto	BB	Mussels	2022/11/08	Five lines are present in the water. All lines were taught, not overloaded, and marked with unique identifiers (Figure 13 and Figure 14)
Saldanha Bay Oyster Company (SBOC)	BB	Oysters	2022/11/08	Buoys attached to mooring blocks are now floating on the surface and have been cleared of biofouling (Figure 15). SBOC has made progress with their maintenance plan during the month of November 2022.
Salmar	SB	Oysters	2022/11/08	Eleven lines are present in the water, lines are taught and straight, and not overloaded (Figure 16). Blue drum floats that are not consistent with Salmar's unique identifiers were observed on site and should be replaced with floats matching Salmar's unique identifiers (Figure 17).
Ulwazi Kukutya	BB	Mussels	2022/11/08	Four lines, empty of product, were present on Ulwazi. Infrastructure was marked with unique identifiers and lines were taught (Figure 18 and Figure 19).
Wada Projects	BB	Mussels	2022/11/08	No infrastructure is present in water (Figure 20). Wada Projects are awaiting their Aquaculture Permit and have not commenced with farming activities.
Well Done Works	BB	Mussels	2022/11/08	No infrastructure is present in water (Figure 21). Well Done Works are awaiting their Aquaculture Permit and have not commenced with farming activities.

7.3.1 Compliance photographs



Figure 5. BOM rafts predominantly parallel to the prevailing current and swell which reduces risk of damage and environmental incidents.



Figure 6. BOM rafts showing three that are still perpendicular to the prevailing current and swell which increases risk of damage and environmental incident.



Figure 7. (Left) Live Google Earth pin of location of compliance photograph in relation to CEX Enterprises licence area (yellow boundaries). (Right) There are no lines present on farm as they have not commenced farming activities.



Figure 8. (Left) Live Google Earth pin of location of compliance photograph in relation to Lagoon Aqua licence area (yellow boundaries). (Right) Infrastructure in the water. Note the unique identifiers on the infrastructure.



Figure 9. Lagoon Aqua with infrastructure in the water. One line was very slack and another line was overloaded and sinking.



Figure 10. (Left) Live Google Earth pin of location of compliance photograph in relation to Madima licence area (yellow boundaries). (Right) Infrastructure are marked with unique identifiers, lines are taught and not overloaded.

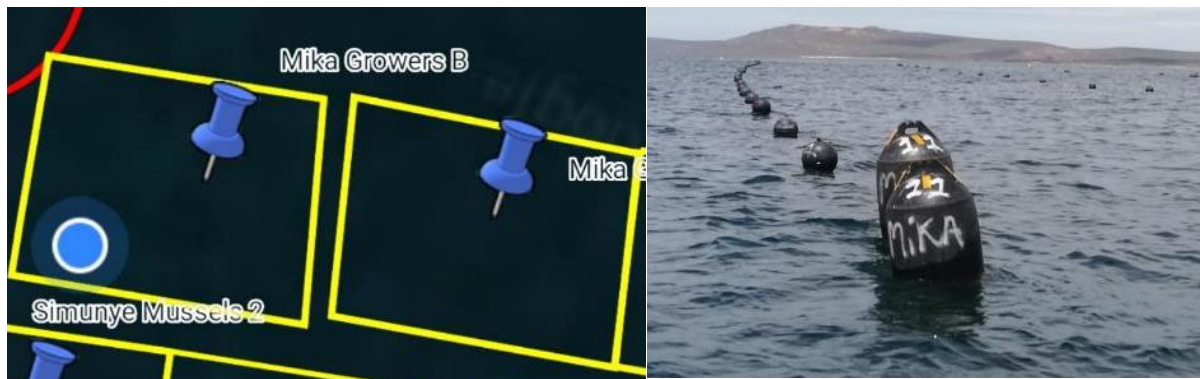


Figure 11. (Left) Live Google Earth pin of location of compliance photograph in relation to Mika licence area (yellow boundaries). (Right) Infrastructure marked with unique identifiers. Lines are not overloaded and predominantly taught.



Figure 12. Mika line 3 bowed and slack indicating that the mooring has shifted and needs to be moved back to its original position.



Figure 13. (Left) Live Google Earth pin of location of compliance photograph in relation to Pluto licence area (yellow boundaries). (Right) Lines are taught, no overloaded, and infrastructure is marked with unique identifiers.



Figure 14. Pluto farm lines are taught, not overloaded and infrastructure marked with unique identifiers.

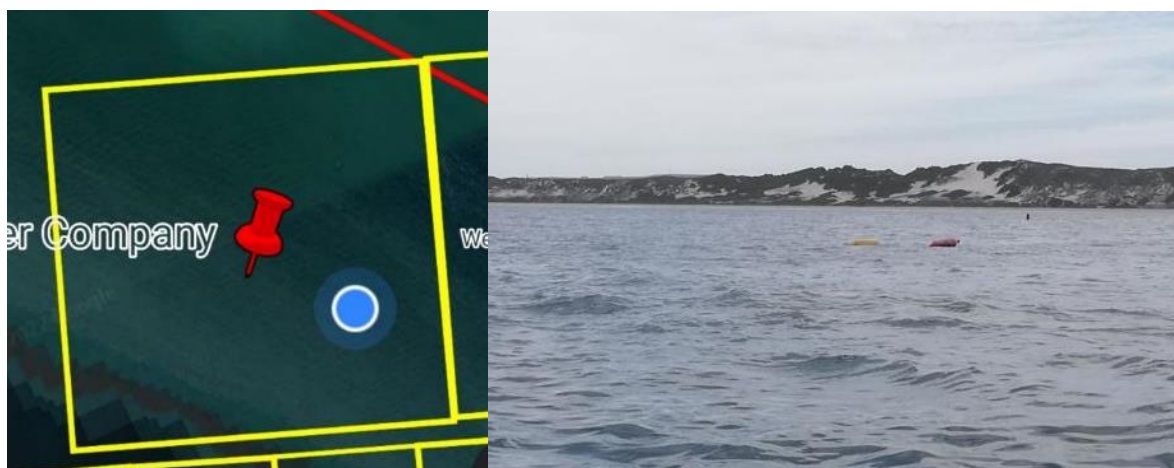


Figure 15. (Left) Live Google Earth pin of location of compliance photograph in relation to SBOC Big Bay farm licence area (yellow boundaries). (Right) Buoys have been cleaned of biofouling and mooring markers are now floating on the surface.



Figure 16. (Left) Live Google Earth pin of location of compliance photograph in relation to Salmar farm licence area (yellow boundaries). (Right) Lines are taught lines and not overloaded. However, the blue drum floats are not consistent with Salmar's unique identifiers.



Figure 17. Salmar farm lines are taught lines and not overloaded. However, blue drum floats are present and not consistent with Salmar’s unique identifiers.

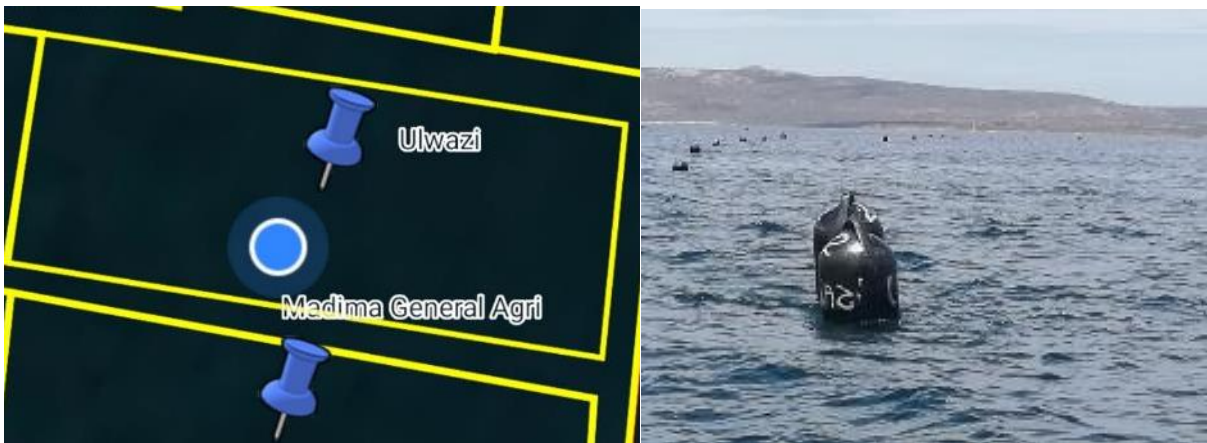


Figure 18. (Left) Live Google Earth pin of location of compliance photograph in relation to Ulwazi Kukutyu licence area (yellow boundaries). (Right) Empty lines in water. Lines are taught and marked with unique identifiers.



Figure 19. Line 6 on Ulwazi farm that is empty of product, suitably marked with unique identifiers and straight.



Figure 20. (Left) Live Google Earth pin of location of compliance photograph in relation to Wada Projects licence area (yellow boundaries). (Right) No lines present on farm as they have not commenced with farming activities.

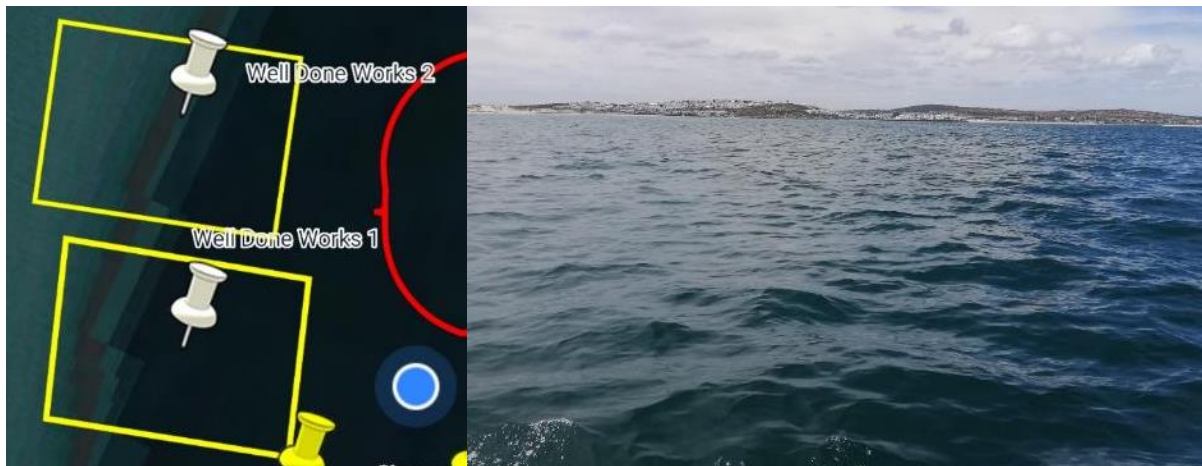


Figure 21. (Left) Live Google Earth pin of location of compliance photograph in relation to Well Done Works licence area (yellow boundaries). (Right) No lines present on farm as they have not commenced with farming activities.



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