



MICHELLE PRETORIUS
ENVIRONMENTAL ASSESSMENTS
SUSTAINABLE AQUACULTURE MANAGEMENT

Broader progress to date on the ADZ

- AMC meetings 10 meetings held (27th July, 8th Aug, 27th Sept, 27th Nov 2018 and 29th Jan, 27th Mar, 26th July, 27th Sept, 28th Nov 2019 and 27th Jan 2020) next meeting is 27th Mar 2020.
- CF meetings 6 meetings held (6th Nov 2018, 5th Feb, 6th May, 6th Aug and 6th Nov 2019 and 6th Feb 2020) next meeting is 6th May 2020.
- The following EMP have been presented to the AMC on the 28th Nov 2019 and the 27th Jan 2020 for the following farms:
 - 1. Blue Lagoon Products— oyster farm
 - 2. African Olive Trading mussel farm
 - 3. Wada Products mussel farm
 - 4. CEX Enterprises mussel farm
 - 5. Well Done Works mussel farm
 - 6. K2019005713 –mussel farm
 - 7. K2019005725 mussel farm
- 23 Farms in the ADZ have EMPs endorsed to date (includes expanding and new farms).



Appointment of the new ECO and monitoring service provider

- The DAFF is in the process of appointing a new ECO for the ADZ March 2020
- New ECO will be introduced formally at the next meeting however email communication of the appointment will be sent out prior to the meeting.
- Environmental monitoring is also part of the contract in line with the Sampling Programme
- DAFF is currently being audited by an external auditor KHULA Environmental Consultants – to check compliance with the EA and EMP. The report will be made available to the CF before the next meeting.
- Advert was placed on the Saldanha Bay Municipality website inviting registration for the CF again as well as the contacts for reporting anything related to activities in the ADZ.
- Further advert is planned for the Weslander this is in process.



Monitoring planned for 2020

- A once off <u>chemical transect survey of sulfide</u> (S²-) to establish the oxic status of the lease areas in Small Bay. The survey should include North Buoy and two other stations as reference conditions.
- Research project to assess the impact of biofouling material on the biogeochemistry
 of the bay. This would require the development of an oxygen budget for the bay
 [through development of a water column box model] and an assessment of the impact
 of discarded biofouling on this budget [for calculation of the oxygen deficit attributable to
 discarded biofouling].
- Deployment of 4 oxygen sensors (Two in Big Bay and two in Small Bay).
- Annual Benthic chemical investigation Redox/sulphides investigation in line with the Sampling Plan
- Annual non quantitative sampling of fouling organisms on farm structures in conjunction with the State of the Bay programme.

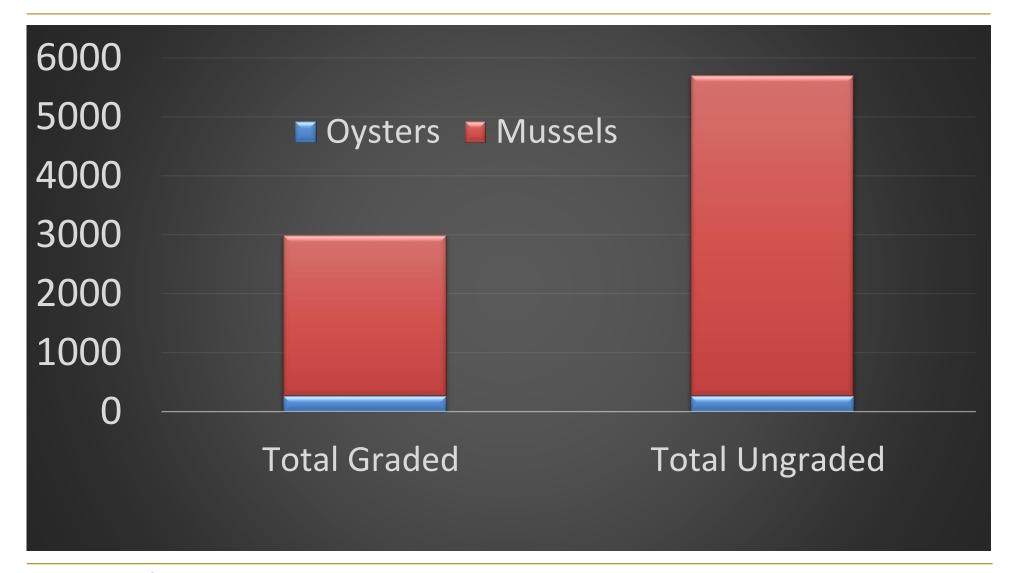


Monitoring continued ...

- Benthic analysis after first 2 years of implementation of the ADZ (Feb 2021)
 conduct a full macrofauna analysis, Total Organic Carbon/Nitrogen (TOC/N),
 geotechnical descriptors and metal analysis in accordance with the Sampling Plan
- Annual report should include monitoring results of all of the surveys (report to be presented to the AMC and the CF)
- <u>Summary of Baseline data survey</u> to analyse baseline benthic survey data (macrofauna and geochemical) already collected by CapMarine and analysed by CSIR and Nina Steffani
- Phased expansion of the ADZ Draft recommendation to inform management and expansion of operations as part of the phased approach.
- ADZ EMP to be amended based on the audit findings.
- Validation of model inputs as per the Dispersion model conducted in 2017.



Total production graded vs ungraded for bivalves Feb – Dec 2019





Projections for Big Bay precinct

- Currently there are <u>4 existing farms</u> on site Blue Sapphire Pearls (mussels), Molapong pilot (finfish), Saldanha Bay Oyster Company (oysters) and West Coast Oyster Growers (oysters).
- There are <u>15 new farms</u> planed for rollout in 2020 (14 mussel farms and one oyster farm)
- In total there will be 15 mussel farms (longline) and 3 oyster farms (longline) with one finfish farm (cages) in 2020.
- Current total (leases allocated): 140 ha (mussels), 50 ha (oysters) and 40 ha (finfish)

NOTE: This projection does not include relocation of existing farms. There is only 80ha additional usable space (after navigational area, spaces and gaps between farms and the shallow areas removed).



Projections for Big Bay precinct

Infrastructure

Currently there are: 29 long-lines.

Current to Feb 2021:

BIVALVES:

- The maximum long-lines per ha = < 1 line per ha (excluding 3 oyster farms) or 1000m production rope per ha (average 23 ungraded tons per ha).
- = +/- 190 long lines (approx. 4370 tons ungraded mussels (2 000 tons graded), depending on other zones and ramp up).

FINFISH:

10 cages (in the 40ha planned for 2020).

After Feb 2021 (if DEA grants the increased production post year 2):

<u>BIVALVE</u>: existing farms will increase number of long-line to max 1.5 per ha (limited area increase, if any). = +/- 290 long-lines. *This is limited by space they require between long-lines to operate.*

<u>FINFISH</u>– Maximum around 30 cages (16m diameter) – depends on stocking density.



THANK YOU

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