



## Marine Finfish Farming Wastewater Treatment

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### Personal Information

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<b>Organisation/Business Name:</b>	Pure Ocean East London
<b>Organisation Type:</b>	SME
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<b>Location:</b>	East London, Eastern Cape
<b>Type of Industry:</b>	Agriculture
<b>Technical Area:</b>	Marine Aquaculture / Marine Finfish Farming

### Technology Offer Description

<b>Technology Maturity:</b>	Ready to Commercialise
<b>Proof of Concept:</b>	Yes. Pilot scale operations. Growth trials to determine growth rate, food conversion ratios (FCRs), stocking density and market price of farmed Dusky Cob ( <i>Argyrosomus japonicus</i> ).
<b>Intellectual Property:</b>	No
<b>Desired Relationship:</b>	Investor/Funding or Co-development partner



## Summary:

Pure Ocean East London offers a state-of-the-art marine fish production system that produces marine fish from a fertilized egg to optimum market size and quality in an efficient manner with the minimum environmental impact. Aspects of this system include juvenile production, environmental control, and disease elimination, recirculating water treatment, stock management, energy and feed efficiency.

## Detailed Description:

Marine Finfish Farming, Wastewater Treatment is an integrated and comprehensive land-based production system for marine fish which includes a state-of-the-art fish live-holding, environmental control and water treatment system. Inputs include juvenile marine fish, feed, oxygen, ozone and seawater. Outputs include high-quality marine fish and treated seawater. The technology can be applied to a multitude of marine aquaculture species for on-growing from seed to market size. The IP of this technology is integrated into the proper system design and the coordination of inputs of such as feed, environmental control (water quality) and stock management systems to ensure an effective production system and an efficiently produced product.

Environmental parameters can be controlled and managed to ensure that animals are held in optimal environmental conditions. This allows the animals to grow optimally, and efficiently converting feed and other operating costs into a high-value product. Aquatic environment control includes water quality management, marine fish husbandry, stock management, production system design, oxygen and ozone application, ammonia removal, pH control, suspended solid removal, aeration, water sterilization, temperature control, brood stock spawning and marine fish larval rearing.

Production system design and operation ensures exceptional environmental conditions and the large scale production ensuring maximum economies are leveraged in terms of growth rate, feed and energy efficiencies. 10 tons of products per annum at present with installed capacity for 400 tons of production per annum targeted for the local and international seafood markets. One grow-out cycle has been completed and production system proven. Repeat production cycles are in process. Expansion of the existing production system is required to attain profitability.

## Team and Related Experience:

The team academic qualifications include Honours, Masters qualifications in Ichthyology and Marine Biology from three South African Universities. Masters Degree in Business Administration (MBA) from the University of Wales (2001). Also Technical qualifications including Class 4 commercial diver, commercial diver supervisor and commercial ski-boat skipper.

Mr. Andre Bok; BSc (Hons), MBA – Managing Director, twenty years of operations and general management experience at large marine aquaculture and aquarium facilities accommodating abalone, finfish, algae and a range of other marine species.

Mr. Hylton Lewis: MSc – Technical Superintendent; Fisheries biologist with technical and biological experience in aquaculture, hatchery management, protected areas, field and laboratory research and recreational fisheries management.

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Mr. Lawrence Grant: MSc – Hatchery Superintendent; Fisheries biologist with biological experience in marine shrimp aquaculture, marine finfish hatchery management and marine wastewater treatment.)

Mr. Matthew Richardson: BSc (Hons) – Production Superintendent; Fisheries biologist with biological experience in marine fish production system management)

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