

APPLICATIONS FOR AN AQUACULTURE LICENCE AND LEASE

by

MPA Fish Farms Pty Ltd

Buccaneer Archipelago

June 2022

**DEPARTMENT OF PRIMARY INDUSTRIES AND
REGIONAL DEVELOPMENT**
APPLICATIONS FOR AN AQUACULTURE LICENCE AND LEASE
MPA FISH FARMS PTY LTD
BUCCANEER ARCHIPELAGO

File Ref	fA453953
Date of Application	2 nd May 2022
General Location	Buccaneer Archipelago
Total Area of Proposed New Sites	13 sites with a combined area of 1214 hectares (25 to 50 hectares per site)
Species	Barramundi
Culture Method	Sea-cage grow out
Other Sites (within 5 n mile) Pearling	Natural Pearls Pty Ltd, Aarli Mayi Aquaculture Project Pty Ltd, Maxima Company Pty Ltd
Further Information	Contact Nicole Watts at the Department of Primary Industries and Regional Development (DPIRD) on (08) 6552 1904 or nicole.watts@dpiird.wa.gov.au .

Information provided by the applicant relevant to applications for an aquaculture licence and lease

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Introduction

This document provides the information for consideration by agencies, stakeholders and community and industry groups regarding applications submitted by Marine Produce Australia Fish Farms Pty Ltd (MPA) for an aquaculture licence and lease.

Proposal

On 2nd May 2022, MPA made an application to the Department of Primary Industries and Regional Development (DPIRD) for an aquaculture licence and lease to grow barramundi at 13 sites across the Buccaneer Archipelago. The sites comprise a total area of 1214 hectares (ha) with individual site areas between 25 and 50 ha. Sites have been through a rigorous selection process to determine areas most suitable for production. Sites have been identified for optimum depth, water current and protection from the prevailing wind.

In its application, MPA seeks to establish an aquaculture operation for the grow-out and harvesting of *Lates calcarifer*. MPA has successfully operated within the Kimberley Aquaculture Development Zone in Cone Bay since 2004, under Aquaculture licence No. 1465, which authorises production of up to 15,000 tonnes of barramundi per annum.

MPA proposes to expand its operations to the proposed sites that are located across the Buccaneer Archipelago to improve production practises, achieve more competitive economies of scale and reduce biosecurity risks. MPA's objective is to provide high-quality barramundi to domestic and international markets, while maintaining the ecological integrity of the receiving marine environment.

The proposal will be conducted in three stages over a 10-year period. Each stage comprises the construction of one nursery site, supplying four to five marine lease areas, each containing 12 sea-cages. Each site will comply with rigorous engineering criteria for cage construction, nets and mooring systems under the ISO 16488:2015 standard for marine fish farms.

Source of Stock and Methods

MPA proposes to grow out barramundi juveniles of between 50 and 75 grams to a harvest weight between 3.5 and 4.0 kilograms using sea-cage culture methods.

Juvenile barramundi will be sourced from the DPIRD marine finfish hatchery located at Fremantle. Juvenile fish will be transported from the hatchery to the existing operations at Cone Bay where they will be grown to 50 grams, before being moved to the proposed sea cages within the Buccaneer Archipelago. Fish movements will be subject to biosecurity and health certification under DPIRD regulations.

Fish feeding will be controlled by staff and will include monitoring to ensure minimal waste.

After harvest of a site has been completed, the site will be fallowed. The fallowing period will allow the seabed under the cages to assimilate fish waste and allow the environment to return to baseline conditions. From a biosecurity standpoint, the fallowing period will have the added benefit of controlling any build-up of fish pathogens that may be present at the site, as they will find no host and will not be able to complete their life cycle, thereby eliminating their presence before a new batch of fish is stocked.

MPA will employ an all-in- all-out method of aquaculture to simplify production and improve fish health and sediment recovery between production cycles.

Culture methods will be similar as those currently practised and proven within the existing MPA licensed sites at Cone Bay (Aquaculture Licence No. 1465).

MPA will deploy sea-cages specifically engineered for local weather conditions and tidal flows. The extra depth and circumference of the cages will allow for lower stocking density than current farming operations in Cone Bay. This will ensure high dissolved oxygen concentrations within the cage to maintain an optimal environment for fish, in turn improving feed conversion and reducing the environmental footprint. Figure 1 provides a diagram of sea-cage deployment and the mooring system.

Stingray anchors designed to minimise impact to the benthic environment will be used to anchor sea-cages in soft sediments, with no drilling or pile driving required.

Each farm site will be controlled from a centralised feed barge containing a feed system, living accommodation and a mortality ensilage system.

Wastewater, including sewage will be either treated for disposal at sea using an approved treatment system, or stored in tanks on the barge and transferred for treatment in Derby by service vessels. All other waste will be disposed of in landfill.

The ensilage will be removed from the site when required and transported to Derby for reuse, or disposal if no use can be found. In the event of a mass die-off, all mortalities would be promptly transferred to shore and with the permission of appropriate authorities, buried in a controlled area on land.

Diagram

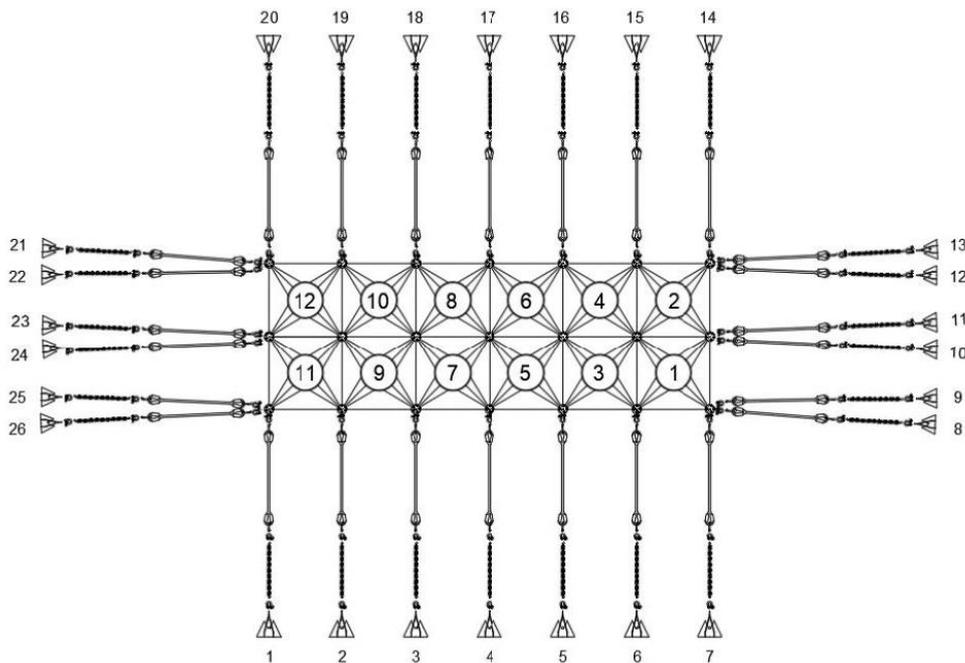


Figure 1:
Proposed farm layout showing one lease area consisting of 12 sea cages.

Management and Environmental Monitoring

MPA understands that the area proposed within the proposed Buccaneer Archipelago Marine Park is both culturally and environmentally significant and has therefore opted to pursue the path of self-referral through the Environmental Protection Authority (EPA).

MPA has submitted a Management and Environmental Monitoring Plan (MEMP), which includes environmental management processes, biosecurity protocols and incident and emergency procedures. The MEMP was developed in accordance with the Environmental Protection Authority's *Technical Guide for Protecting the Quality of Western Australia's Marine Environment* (EPA 2016). MPA's MEMP outlines proposed biosecurity and quarantine controls. MPA is committed to monitoring and reporting environmental parameters including dissolved oxygen, sediment, turbidity, nutrients and trace metals.

Cages will be deployed in a highly energetic, well mixed environment conducive to assist with dilution, flushing and assimilation of nutrients.

All feeds will be sourced from reputable suppliers and packaged under ISO standards, with ISO information available from the feed supplier.

All fish stocks will be obtained from commercial supply lines, per DPIRD regulatory approvals.

All stock will be monitored daily for any signs of disease. MPA has identified appropriate response thresholds in the event of disease outbreak and, or, a mass mortality event. Any rates of unexplained mortality or signs of disease will be reported to the DPIRD Diagnostic Laboratory Services, as per aquaculture licence conditions. Any pest organisms including unapproved, noxious or exotic aquatic organisms will be euthanised, labelled and preserved according to standard procedures before notifying DPIRD.

The health and condition of coral reefs will be monitored at nearshore reefs in proximity to the sea cages and at comparable reefs outside the predicted area of influence.

MPA aims to ensure any interactions with marine fauna are minimised as much as possible. Employees will be provided thorough training to ensure consistency in identification and reporting of protected and threatened species interactions. For the purposes of managing interactions with marine fauna, MPA will comply with the Kimberley Aquaculture Development Zone Management Policy and with the training, procedures and mitigation strategies outlined in its MEMP, including monitoring and reporting any interactions with protected species.

MPA will employ marine fauna mitigation measures that include physical predator exclusion devices on sea cages; and operational practices including timely removal of dead and moribund fish to discourage scavenging, minimising vessel operations as far as practicable and establishing preferred routes and ensuring that skippers adhere to them.

Risks

The proposed aquaculture activity poses no significant environmental issues; identified risks are accommodated by MPA's MEMP, which has been developed to align with the EPA's *Technical Guidance for Protecting the Quality of Western Australia's Marine Environment* (EPA 2016).

Barramundi occur naturally in coastal waters within the North-West Kimberley region. MPA has identified response thresholds in the event of disease outbreak and mass mortality. All fish stock will also be tested for disease prior to transfer to sea-cages, and translocation will be conducted in accordance with any relevant regulations to further mitigate the risk of disease introduction