

# **Planning for Aquaculture in Queensland**

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## **Introduction**

The aquaculture industry in Queensland has an ever-increasing potential to supply consumers with great tasting, high valued seafood that does not place additional pressure on wild fishery stocks. Aquaculture is a drought proof, high quality agribusiness based on native Australian species produced in an environmentally sustainable manner. It provides highly nutritious seafood with excellent health benefits and has the potential to bring economic and social benefits to Queensland's regional communities.

Seafood production from aquaculture has many benefits to regional communities including creation of employment, skills development, additional income sources for marine service industries, tourism and supply chains. All of these elements are valuable to Queensland's regional economies.

The majority of Queensland's aquaculture production occurs along the coastal margins in landbased farms that culture prawns and barramundi in earthen ponds. Marine aquaculture off the coast of Queensland is less developed but does supply the market with edible oysters, scallops and some pearls. Redclaw crayfish and several species of freshwater fish are also produced within the state.

Queensland's coastal regions are highly important ecologically, and are managed to protect and conserve biodiversity and habitat values. In order to grow any primary industry in the coastal region, it is important to get the balance right to achieve the State's economic, social and environmental goals.

The Queensland Government has identified the aquaculture industry as a priority sector for growth, while continuing its commitment to protecting the coast and the sustainable use of coastal areas. One of the key activities of Fisheries Queensland Aquaculture Policy and Development unit is planning for land-based and marine aquaculture. Planning for aquaculture will work with a number of other relevant planning schemes, such as the Queensland Coastal Plan, that manage important values in the coastal area.

## **DISCUSSION**

### **Queensland Coastal Plan**

The Queensland Coastal Plan (QCP) will manage development within the coastal zone (i.e. state tidal waters and 5km inland from the coastline). The Queensland Coastal Plan aims to protect the coastal zone and manage impacts to people and property so as to avoid the social, financial and environmental costs resulting from the impacts of coastal hazards, taking into account the projected effects of climate change.

Although some forms of development, such as urban and residential development, will be restricted within the coastal zone, the QCP recognises several types of

coastally-dependent development, including landbased seawater aquaculture (eg. pond-based prawn farms) and marine aquaculture (e.g. edible oysters, pearl oysters), need to be located within the coastal zone to function.

The QCP provides for future coastally-dependent aquaculture developments to be located within strategically planned Aquaculture Development Areas (ADAs). The Department of Employment, Economic Development and Innovation (DEEDI), will undertake planning and site selection for new ADAs in consultation with the Department of Environment and Resource Management (DERM) and other government departments, industry and community groups. It is intended that ADAs, once finalised, will be added to the QCP via regulatory amendment.

### **Aquaculture Planning**

To date, aquaculture development has largely been ad-hoc and proponent driven, with minimal strategic direction. The identification of ADAs on a strategic basis will provide greater investor confidence and streamline the approvals process, enabling the Queensland government to achieve a balance between profitability, sustainability, and social responsibility.

In order to identify suitable areas for coastal dependent aquaculture, Fisheries Queensland is developing a *Methodology for selection of Aquaculture Development Areas in the coastal zone* (ADA methodology), which will be available in the near future. The primary objective of this methodology is to outline a consistent and transparent process for the selection of high quality aquaculture areas that are appropriately located and suitable for designation as ADAs under the QCP. The methodology provides high-level principles and a process for the selection of new sites for aquaculture development.

The ADA methodology adopts standard planning processes that aim to balance the needs of aquaculture with environmental, social and economic values. The planning process for the selection of ADAs will move sequentially through a number of phases. The first phase is the development of a GIS model to identify potential areas based on opportunity/constraint mapping. Then, areas showing the best potential from the desktop modelling will be ground-truthed and undergo further on-site technical investigations to determine their suitability for aquaculture development. Finally, sites that display the greatest potential for aquaculture development from these investigations will be finalised following public and intergovernmental consultation, mapped as ADAs, and included in the QCP. Once included in the QCP, ADAs should be reflected in regional plans and be incorporated into local planning instruments.

The planning processes for ADA identification will follow-on from that undertaken previously in the development of the Great Sandy Regional Marine Aquaculture Plan. The process of planning for marine non-intensive aquaculture in the Great Sandy region will act as a template for regional planning in other regions.

## **Great Sandy Regional Marine Aquaculture Plan**

The Great Sandy region was identified as highly suitable for marine aquaculture, having relatively sheltered but deep waters, close proximity to domestic and international transport centres, and a regional skills base in the marine industry and seafood processing. Fisheries Queensland began the development of a marine aquaculture plan for the Great Sandy region in 2006 to maximise non-intensive aquaculture in the region.

The Draft Great Sandy Regional Marine Aquaculture Plan (the Plan) was released for public consultation in 2008 and is currently being finalised. The Plan identifies 24 new sites that may be developed for non-intensive (no feed added) marine aquaculture (rack, line and ranching aquaculture but not sea cages) in line with the provisions of the marine park. The sites were chosen to minimise conflict with other user groups, while considering the social and environmental value of the region. To further reduce the risk of impacts on these values, the Plan provides clear rules regarding the approval and the conditions of operation. The Plan describes management controls for each site, including the requirement for an environmental bond, infrastructure design specifications, monitoring and reporting procedures. The Plan is non-statutory and complements the existing statutory approvals required under planning and fisheries legislation.

The Plan involves development within a Marine Park, which is acknowledged to be a sensitive issue for the community, however it also means considerable planning and multi-use zoning has been undertaken, including protection of certain areas for conservation purposes. Accordingly, the process for site selection has involved a number of stages to ensure a rigorous site selection process and inclusive public consultation. Aquaculture sites are only proposed within or near sensitive habitats where the activity is consistent with the entry and use provisions of the Great Sandy Marine Park Zoning Plan and the activity can be adequately managed so as to be compatible with environmental, economic and social values.

Streamlining of assessment processes is an essential step towards removing regulatory obstacles and simplifying the approvals process, making Queensland more attractive to investors. The Queensland and Commonwealth Governments are in the process of formalising a Conservation Agreement, whereby aquaculture activities undertaken in accordance with the GSRMAP need not seek Commonwealth approval under the EPBC Act. This will be the first document of its kind in Australia regarding activities in the marine environment to support the planned ecologically sustainable development of an industry. Further, accreditation of the Plan under the Queensland Marine Parks legislation is being pursued to eliminate the requirements for aquaculture proponents to apply for Marine Park permits.

## **Take home messages**

Strategic planning for Aquaculture Development Areas in coastal areas of Queensland will produce a number of quality sites to develop the aquaculture industry in the state whilst maintaining a balance between environmental, social, and economic values.

The benefits of the strategic planning process to provide formally recognised Aquaculture Development Areas include:

- consideration of cumulative effects of development
- consideration of all relevant planning schemes and state-recognised values such as Strategic Cropping Land and areas of High Ecological Significance
- opportunities for consultation with relevant stakeholders, including the public, about where future aquaculture may take place
- increased clarity to community regarding where future aquaculture will be and won't developed
- whole of government support for identified sites
- reduced costs of site identification and greater investor confidence in achieving successful application outcomes
- detailed management controls for each ADA to ensure that the aquaculture activity within the ADA is undertaken sustainably
- opportunity to pursue a more streamlined assessment process by seeking endorsement of ADAs from commonwealth and state government agencies where additional approvals are triggered

The goal of aquaculture planning by the Queensland Government is to develop the aquaculture industry in the state while continuing the government's commitment of protecting the coast and the sustainable use of coastal resources.