

**Submission to the Queensland Competition Authority  
Aquaculture Regulation In Queensland**

**Confidential information in this submission has been excised**

Dr Trevor Anderson  
Grofish Australia Pty Ltd  
112 Carrington Street  
Adelaide, SA, 5000.  
Email:Trevor.Anderson@mermidon.com  
Phone 0417604214

**Background Information regarding the author.**

I have a long-standing history of involvement in aquaculture in Queensland. I was the President of the Qld Aquaculture Industries Federation for 8 years, managed large aquaculture enterprises in Queensland for 10 years and developed and taught courses in aquaculture at James Cook University, Townsville, and Deakin University, Geelong, for 14 years.

A copy of my CV is attached for the information of the review panel.

**General Principle**

I am firmly of the view that regulatory restrictions on aquaculture in Queensland have robbed the Queensland people of a large, viable and environmentally sustainable industry. While many of the topics raised in this review are important, they pale into insignificance with the need for a single, encompassing piece of legislation that provides for a clear, codified process for acquiring a license to conduct aquaculture in Queensland within a reasonable time-frame.

**Commercial appetite for aquaculture in Queensland.**

Queensland has a number of commercial advantages for aquaculture. These have been widely recognized over many years, but development is constrained by regulation.

1. Queensland, like all of Australia, is relatively free of commercially important aquatic diseases. The disease management capability at government, professional response (ie veterinarian) and operator level is relatively high. Although not to be taken for granted, this factor mitigates substantially, a major risk associated with aquaculture which is the catastrophic loss of stock due to disease. Consequently, Australia and Queensland particularly is potentially an attractive environment for investment.
2. Although individual labour costs are high in Australia in comparison to major aquaculture producing countries, which are our competitors, two factors serve to mitigate against the commercial impacts of these wage rates.

- Australian labor is much more efficient measured as production per effective full time employee (EFTU). An example is a comparison of Australian and Indonesian prawn farming. Modern, Australian prawn farming can be conducted at a labour rate of about 6 Ha / EFTU. Indonesian prawn farming by comparison is conducted at a rate between 0.2 Ha / EFTU and 1.0 EFTU / Ha.
  - As development occurs in those competing countries, wages increase and our greater efficiency make Australian production more cost competitive in labour terms. Increases in efficiency do occur in competing countries (an example is Thailand where increasing labour costs are leading to improved production per EFTU), but the Australian advantage still remains.
3. The sovereign and cultural risk in Australia is relatively low compared to competing countries providing a significant degree of comfort to investors from Western countries.

However, the environmental and regulatory risk in Australia, particularly in Qld, is extremely high. While the discussion paper compares regulation in Australian States and quotes the CIE Report as having more similarities than differences, in comparison to regulation in competing countries, Queensland is perceived by the commercial investor to be an extremely difficult regulatory environment.

Thus, the Queensland Aquaculture Industries Federation has been proposing for many years, so far unsuccessfully for reduced and streamlined regulation.

### **Broad principles to be applied in developing a regulatory structure**

Any regulatory structure must have the following characteristics:

1. A clearly defined process, laid out clearly and concisely with statutory time-lines for responses and decisions.
2. A codified set of conditions and restrictions that must be met, thereby constraining the managers of the licensing process from imposing individual or ideological constraints.
3. A single piece of legislation, that provides for inclusion or accreditation of a variety of interests and facilitates thereby the removal of individual pre-conceptions, motivations and biases from the process of approval.
4. A review mechanism sufficiently spaced to allow timely reparation of the flaws in the codified conditions and incorporation of advance in technology.

### **The value of a single piece of legislation**

At my last count, we identified 34 Acts and Regulations that impacted on an application for an aquaculture license in Queensland. This count didn't include policies or guidelines, which also apply to the licensing and operation of an aquaculture venture.

Most worryingly, a number of these Acts overlap, with multiple pieces of legislation impacting on groundwater, seagrass and water quality amongst other issues.

Consequently, negotiating a license, as I was involved with doing for Pacific Reef Fisheries, required discussions and negotiations at times with 3 or 4 experts from 3 or 4 departments, many of whom didn't agree. Coming to terms with 3 or 4 people who are supposedly representing a government view and who don't agree is frustrating, expensive and at times absurdly comedic. Certainly, it doesn't engender a sense of confidence in the process on the part of the applicant.

A single administrative unit focused on aquaculture, without the support of a single piece of legislation is bound to fail. The State Labor Government under Premier Peter Beattie, tried using the Department of State Development and Projects of State Significance of which the Guthalungra license was one, to achieve aquaculture development. Inter-departmental jealousies, disagreement over science and different departmental objectives all contrive to complicate and delay the process of approval.

In private discussions with government officers, the author has been told that the major problem with developing a single Aquaculture Act is to get the different government departments to give up control of matters currently in their jurisdiction. This will remain whilst multiple departments administer separate pieces of legislation that impact on aquaculture licensing.

The value of a single piece of legislation extends to negotiations with federal accreditation of aquaculture licensing to the State. Again, such accreditation would currently require multiple federal agencies and multiple state agencies negotiating for accreditation for the administration of multiple pieces of legislation. If a level of complexity can be removed at the State level, then negotiations should be simpler and more successful sooner.

### **Environmental standards for Queensland Aquaculture**

The environmental standards imposed on Queensland aquaculture have demonstrably protected the Queensland environment. There has been no study to date that has demonstrated irreversible environmental damage by a Queensland aquaculture operation. Despite this, environmental standards have been continuously tightened on new licenses. Improved technology has allowed these improved standards to be met and the industry has, in general, supported their imposition.

The environmental standards for Queensland aquaculture as negotiated with the Queensland government in the case of, for example, the application for a license by Pacific Reef Fisheries at their Guthalungra site, are strict but achievable.

The Commonwealth subsequently over-rode those negotiations and conditions and using the EPBC act imposed even more onerous conditions on that approval. The conditions imposed by the Commonwealth can't actually be met in practical terms and ignore the significant scientific analysis and discussions engaged in at the State level. They are unreasonable and effectively prevent development of that project. The ideological seeking of the highest environmental "cred" at the federal level is preventing development of a significant economic opportunity for Queensland.

### **The concept of overlays similar to zones**

Australian aquaculture is comprised of a diverse range of ventures led by a variety of investor types. Some investors have a block of land and seek to invest in aquaculture, some are large companies seeking to invest significant funds.

While overlays and zones can facilitate development by large companies and individuals who are not familiar with aquaculture, perhaps even providing surety of licenses and the security of governmental support, they may also constrain development of a smaller nature by individuals and small companies who already own suitable sites. Overlays and zones also serve to inflate the cost of acquiring suitable sites. In the early 1980's and 90s, there were a series of developers who acquired land and obtained aquaculture licenses as an enterprise to add value and sell-on properties at inflated prices. Whilst some of these sites are now operating enterprises (eg Coral Sea Farms, near Ingham), others have licenses that were not developed and which have subsequently lapsed.

Zones may also undesirably concentrate aquaculture activities in restricted areas. Like all land use, concentrating particular activities has a major impact on the environment. In some cases, such as ports where each development is environmentally significant in its own right, concentration has value. However, extensive areas of monoculture such as sugar cane farms completely changes the surrounding environment leaving limited or no opportunity for refuge areas for wildlife. Overseas experience has also demonstrated that concentrated areas of aquaculture increase the possibility of disease impacting on an industry.

Development of zones is also a time consuming process that doesn't necessarily lead to development. The development of the Hervey Bay Regional Aquaculture Plan, whilst it is to be applauded, has led to limited development, whilst taking a period of time and incurring a complexity of negotiation perhaps not dissimilar to that required for accreditation of the whole state. The time required for development of zones would, in my view, be better spent improving regulatory processes that allow individuals to determine their own locations and enterprise.

### **A changed distribution of responsibilities**

Wherever there is multiple jurisdictional control, there is regulatory confusion for applicants. This is clear and unquestionable.

- The Guthalungra Project achieved approval by the Queensland Government after considerable expense and negotiation from both the proponent and the Government. That approval was then effectively stymied by the Commonwealth, who sought to renegotiate the whole set of conditions.
- I think it is sufficient to say that the last prawn farm approval that was actually developed in Queensland occurred when the State was accredited by the Commonwealth to administer the EPBC Act for aquaculture in Queensland.

In my view, it is fundamental to the development of aquaculture in Queensland that a single encompassing piece of legislation agreed upon and accredited by both State and Commonwealth governments be achieved.

### **Environmental offsets**

Environmental offsets provide significant opportunities for developing a project that may have technological difficulties in meeting environmental standards, but which are in an area where previous environmental damage can be repaired by current technology. However, offsets should have a clear and reasonable basis for their imposition and be codified such that they can be incorporated on a justifiable and equitable basis. Thus the proponent will know ahead of time, what the offset for a given impact is likely to be rather than having it “made up on the run” as is current practice.

Imposition of offsets must be fair and equitable. Current proposals for aquaculture, a point source of nutrient discharge and therefore easily measured, to have the economic imposition of offsets designed to clean up a broadly polluting industry, such as cane farming, imposed upon it are not fair, equitable or sound environmentally. It would pose a fundamental injustice where one industry, which is relatively clean and utilizes high levels of technology is paying for an arguably dirtier industry generally utilizing lower levels of technology simply because it’s nutrient input can be measured easily. This imposes an economic cost on aquaculture and removes incentives from cane farmers (for example) to clean up their industry.

Setting up a system of offsets which are geographically, and therefore environmentally, distant from the activity causing the damage also means that a decision must be taken to allow more serious degradation of one habitat over another. This disregards the interaction between adjacent environments where degradation of one will impact on adjacent environments and is controversial. Picking winners, whether it be commercial enterprises, industries, endangered species or individual environments only serves to constrain improvement and innovation.

### **Suitable locations for aquaculture**

There are many suitable locations for aquaculture in Queensland. Most opportunities are unexplored as the licensing process is so discouraging to investment, most investors contemplating aquaculture go somewhere else.

As described elsewhere, picking winning locations in Queensland is fraught. Aquaculture is an industry characterized by innovation and it should be left to investors to identify suitable locations for their enterprise.

Particular issues arise wherever one proposes development. As an example raised by the Review Panel, The Gulf of Carpentaria has some obvious issues to resolve with labour, transport, power and logistics before one addresses any land-ownership, biological, or technical problems. One thing is sure, if there is significant doubt about licensing, investors won’t even contemplate resolving these issues. While the Gulf of

Carpentaria may provide an opportunity to limit Commonwealth involvement in licensing, logistics issues are significantly large as to make Gulf aquaculture challenging. Aquaculture in coastal North Queensland is routinely and seriously impacted by flooding of the Bruce Highway, the major transport corridor to and from North Queensland. The difficulties associated with road closures across the Cape during the wet season will significantly impact the commercial viability of Gulf aquaculture. However, if confidence regarding licensing can be engendered in the investment community, solutions to these problems are likely to be found.

It is worth noting, however, that aquaculture enterprises in Northern Australia, notably northern Western Australia and west of Darwin, where similar logistic issues have arisen, have struggled to develop.

### **Marketing levy**

A marketing levy has been used by a number of industries to provide increased market penetration of a particular product type. Clear examples are provided by each of the lamb, bananas and beef industries. Such a levy would need to be imposed nationally in order to generate sufficient funds to achieve any marketing success.

In the extensive experience of the author, informing consumers about environmental soundness of an industry is only successful in reducing the impact of opponents using environmental arguments to government to increase regulation. If regulators rely on hard science to govern the level of regulation, then such marketing is unnecessary. In the author's experience, marketing environmental credentials does not increase consumption or achievable price. Consumers expect an industry to be environmentally sound and if it is not, for the government to do something about it. Notably, none of the successful product marketing programs have discussed sound environmental practices. Utilising marketing levy funds for other messages is extremely valuable as demonstrated by lamb and bananas.

### **Financial safeguards**

Drawing parallels between mining and aquaculture when considering financial safeguards for rehabilitating the environment is inappropriate.

Mining is a finite activity. Mines remove the resource and the mine will run out of resource eventually. Obtaining that resource involves removing top soil, digging large holes and removing material which will never be replaced. It is inevitable that restitution will be required.

Aquaculture is a potentially infinite activity and its longevity is increased with impending food shortages. Aquaculture is continually renewed with resources of water, seed stock and feed and utilizes the natural resources rather than removing them. Aquaculture requires reshaping productive ground, ensuring a sound and healthy environment for growing animals, drawing water from the environment and replacing it. It is more appropriate to use agriculture or other forms of terrestrial animal production as an analogy.

Imposing financial safeguards suggests that the environment will be irrevocably damaged. There is no evidence to suggest Australian aquaculture has ever irrevocably damaged the environment. It has certainly changed it, but so has building cities to live in, growing crops and building fences to control stock. No-one would sensibly suggest that organisations engaged in these activities should provide financial safeguards for restitution of the environment.