

Queensland Competition Authority

Draft Report – Aquaculture Regulation in Queensland

I am Andrew Hamilton a passionate Australian aquaculturist with degree in applied science (Aquaculture) from the University of Tasmania. I have experience in the Australian and Asian fishing and aquaculture industries and have had extensive experience working, studying and travelling in and around Australia and South East Asia. My background during and after my formal training in Aquaculture, is some 20 plus years' experience in Aquaculture and fisheries. The majority of this experience (17+ years) is in Tropical Multi Species Marine Fin Fish Hatcheries, Nursery and Grow out. I am well versed with aquaculture techniques and technologies for a wide range of fish species, particularly Barramundi, Tropical Snappers, Grouper, Australian native fish and other species.

Whilst I applaud this report in the form that the regulations in regards to aquaculture in Qld are very much in need of review and simplification in comparison with other states and the requirements placed upon other intensive primary industries and it is my belief that this over regulation over complication has indeed stymied investment, growth and diversification in aquaculture in Qld and will continue to do so unless a more common sense simplified system is put in place. I think the decision also has to be made as to if Aquaculture is to be treated as a primary industry similar to that of other intensive agriculture projects in regards to its development or treated as an industrial type development similar to that of development of a new port or expansion of an existing port or development of a new mine that have billion dollar budgets yet tend to send the majority of their profits overseas and despite wide public disapproval go ahead regardless. Although this may not be the case, it certainly at least appears to be. The way in which aquaculture is treated currently yet seemingly without the government support and backing such projects appear to get stalled and tied up in red tape so investors lose hope or faith, in fact with the examples of such projects as the Sun Aqua project in Morten bay which by all accounts had Scientific and environmental approval to go ahead suddenly the government turns around due to good or bad political lobbying on account of a few very loud and very misinformed people and cancels the approval due to political reasons not scientific reasons and then people wonder why Investors have little or no confidence in investment in Queensland Aquaculture.

In fact the regulations and approvals in regards to major projects appear to be geared more towards extractive, short- medium term (20-30 year project life span), and environmentally unsustainable projects such as mining and or mining related activities e.g... Rail corridors, port facilities etc. that tend to drive up costs (labour, goods, housing etc.) in the short to medium term to almost unsustainable levels for other industries i.e. other manufacturing, general labour and primary industries, yet seeming contribute very little in the way of development of long term infrastructure other than direct infrastructure and even to the long term economy of the state or nation with most investors or parent companies being overseas based which tend to see the vast share of profits or value to the economy shipped overseas as well or at least this is the common perception. Whereas primary industry's including aquaculture tend to be more medium to long term, environmentally sustainable projects that contribute directly to the local, state and national economies and tend to keep their profits within the Australian economy, buying Australian manufactured feeds and supplements contributing directly to Australian research and development, as well as staff training and development and value adding of products and local processing therefor contributing even more to the local economies over the medium to long term.

Yet Aquaculture developments are not awarded the same significance as other projects and in fact are stymied by the over regulation and lack of governmental support. With the government support and resources available to Aquaculture being greatly reduced in the last

decade with the closing of the Freshwater research centre at Walkerman in the Atherton tablelands many years ago, then the further reduction in support of tropical Aquaculture in the North being further reduced with the closing and lease of the Northern fisheries centre to private enterprise and the associated loss of research and development staff and resources. Then in the south the closing and amalgamation of the fisheries research centre at Deception Bay and CSIRO's facilities at Cleveland with the already downsized Bribie Island Aquaculture centre and with the downsizing of aquaculture support staff state wide have been great blows to Aquaculture development in Queensland and to further stymie Aquaculture development and investor confidence. It is a fact that other countries are very supportive of Aquaculture with various government projects, research, training and support centres directly responsible for the support of Aquaculture and to use some regional examples Singapore, Indonesia, India, Malaysia and the Philippines all not only provide direct aquaculture support and extension services on top of government research, training and supply facilities with some countries such as Singapore actually matching Aquaculture investment on a Dollar for dollar basis.

I also find that with the current almost anti aquaculture stance of some individuals within and of certain government departments i.e. GBRMPA (Why do they appear to be so negative towards aquaculture?). That for aquaculture to move forward in this state those individuals and or departments may have to be excluded from the process? Also the previous downsizing of relevant government departments and resulting loss of support and extension staff is going to have long term impacts upon this process and the overall expansion of aquaculture in Queensland.

8 Proposed Administrative Arrangements in QLD

8.1 Terrestrial aquaculture development areas

Whilst I am in general concencous with the draft recommendations I have the following questions and/ or suggestions.

Environmental Considerations

There have already been several studies/papers written on the environmental impacts of Aquaculture by several reputable research institutions i.e. CSIRO – Carbon tracking of the nutrient flow and impacts of Blue Water Barramundi - Hinchinbrook Channel , and then the expansion of these findings thru GIS studies to find suitable areas for Aquaculture in Northern Australia, Also the impacts of marine sea cage farming at Cone Bay, King sound WA for MPA(Marine Produce Australia) as well as other studies already completed by AIMS and other agencies both domestically and internationally. Why have the findings of these studies which have shown the impacts of aquaculture in properly designed and or correctly sited projects are very little or in fact negligible with these results it seems mostly ignored by mainstream leglastlators and/ or the associated government departments e.g. GBRMPA.

Why are other states and countries worldwide allowing Aquaculture both terrestrial and Marine (extensive and extensive) in the vicinity of marine parks and Coral reefs yet here despite the obvious benefits and minimal impacts of properly designed and sited Aquaculture projects do projects continually become stalled and delayed and/ or denied in QLD. When other significant projects as damaging or even more destructive and having similar if not greater affects upon the environment particularly the GBR seemingly get approval? Or why is it that expansions in agricultural projects with similar effects as aquaculture upon the environment require little if any approval and if so do not have similar restrictions placed upon them as Aquaculture? Why the difference in regulations just because it is easier to monitor Aquaculture discharges due to single point discharges does not mean that Industries, agricultural or otherwise with similar inputs as aquaculture should not face the same scrutiny as Aquaculture or vice versa. If Aquaculture has to run a tight ship environmentally then why too don't they?

Administrative Considerations

Why has the magical figure of 450 Hectares been arrived at? Why not 500 or 1000Ha? Is this just because the Guthalungra project has a total area of around 400 Ha does not mean that successive projects will be of a similar size? In my option it may be better to develop several smaller Aquaculture Development areas 50- 150ha possibly also allowing for multiple farms/ licences, but with a possible staged expansion already on the drawing board so as to allow ease of later expansion/ addition of projects after a period of initial development period. This will not only allow the possible entry of several new entrants into Queensland Aquaculture as well as allowing possible expansion for existing operators with the multiple areas spreading the biosecurity, and environmental risk as well as to spreading the potential financial benefits over multiple regions.

In regards to funding the development of terrestrial aquaculture development areas, those north of the Tropic of Capricorn could most certainly be considered for

application of Northern Australia development funds? But for any potential non applicable development i.e. southern developments perhaps a one off contribution from general revenue is to be considered especially in light of the governments greatly reduced funding of Aquaculture related resources in recent years and the potential for greater revenue generation and the associated flow on effects any new developments are likely to have.

Options

In regard to the 3 options listed possibly a mix of the 2nd and 3rd options dependent upon the intended use of the particular site and or the size of the projects intended for that particular site.

As an example if the use was to be say a new hatchery or recirculating system development then the more stringent conditions and greater guarantee associated with option 3 may be found to be more suitable? However with a larger pond based prawn or fin fish farm then perhaps the greater flexibility allowed by option 2 may be found more suitable?

8.2 Environmental Offsets

How can industries with similar impacts to aquaculture either not be required to participate in an offset program at all or have differing requirements to that of aquaculture and even aquaculture developments of similar natures have such a greatly varying range of investment (\$6000 -120,000)? How does this create a stable platform with which to encourage investment?

Who is the reef trust administered by GBRMPA? If so then could they not have a vested interest in greater environmental offsets? Particularly in light of GBRMPA's seeming almost anti-aquaculture stance. Will this money go towards research or projects that may ultimately reduce or improve the potential impact of aquaculture upon the GBR or will they go to general revenue of the Trust?

Why in light of the findings of research institutions such as CSIRO and AIMS which show almost negligible impact of properly designed and managed aquaculture projects that already have to meet already stringent operating conditions

8.3 Who Implements the Reforms?

I agree with all the stakeholder comments about a more simplified system with the redistribution of responsibilities back to the state in line with common guidelines (state and commonwealth) in possibly a single aquaculture department or at least initially an inter-agency task force but this has to be supported by specialist aquaculture legalisation without the interference of the Commonwealth especially in light of GBRMPA veto powers and their seeming anti- aquaculture stance.

8.4 A Single Act of Aquaculture

There has to be a move towards a simplification of the application process be that firstly an agreement and clarification between all interested parties to the same common guide lines, definitions and requirements the for Aquaculture developments but with set steps between all processes with set timelines so as to prevent delays

and to expedite the process. At the moment there appears to be too many chiefs and not enough Indians as the saying goes. Then moving towards specific Aquaculture legalisation and possibly with similar timed steps for responses between government departments and then possibly ultimately a specific aquaculture department as occurs in other states.

9 Marine Aquaculture

I also find it strange that although this draft specifically all but rules out the possibility of marine aquaculture in all but the far north and west of the state. It then goes on in detail to compare the regulations from other states specifically in relation to marine aquaculture when supposedly the draft review is focused on terrestrial marine aquaculture? It all seems that dealing with GBRMPA is simply put in the too hard basket. As to why I do not know as there are many examples world wide of successful marine aquaculture in and around marine parks and coral reefs and many pro-aquaculture reports showing the minimal or negligible impact of Aquaculture including Marine Aquaculture e.g. Sea cage farming (CSIRO, AIMS), in correctly designed, managed and sited marine aquaculture projects so why do the relevant government departments state and commonwealth continue to procrastinate against them and deny the research and continue to bury their heads in the sand.

I know there was great public concern to do with the Sun Aqua project due to seemingly a very public and political anti aquaculture smear campaign by generally misinformed and not in our back yard, public. With a great many of the raised public concerns easily being addressed in a comprehensive site management plan.

The question must be asked why if Marine aquaculture is so harmful to the environment and has such a bad public reputation then why in places such as Tasmania are the public so supportive of Aquaculture the vast majority of which is Marine Aquaculture. Why is it that a recent survey in New Zealand found 75%+ of the general public in favour of expansion of Aquaculture the majority of which is Marine Aquaculture.

In my experience without an expansion into Marine Aquaculture in this state Queensland is going to fall behind the world in aquaculture in the expansion of existing species and the growth of developing and new species for both the domestic and high value export markets. Species such as, grouper species e.g. coral trout, barramundi cod etc. or for species such as Tuna, Yellow Tail, Snapper, pompano, cobia, tropical crayfish and many other new and developing species some of which are not suitable or as suitable for traditional pond culture as is used in terrestrial aquaculture they could possibly be grown in more expensive recirculating systems but then it makes Queensland produced product less competitive against cheap imports or production from other states and in the export market.

Whilst it is great that this review appears to be greatly in support of terrestrial aquaculture which is fantastic in its own right, the fact that it does not include or specifically disclude Marine Aquaculture because of experiences with the likes of Sun Aqua, so puts it in the too hard basket in other than the suggested Torres straight and Gulf of Carpentaria some of the remotest and most isolated reaches of the state. Areas that without significant government investment in the way of reliable flood and disaster proof infrastructure such as power, road and rail networks will find it very hard to spike an interest in investment due to logistical, supply and overall

remoteness of the regions and other all associated issues with remote areas such as staffing etc. all adding to increasing the costs in an already tight production budget. I find it ridiculous not to include marine aquaculture into this review considering every other state in Australia supports a growing and sustainable marine Aquaculture industry with the exception of Queensland and even though there are marine aquaculture precincts or declared areas such as the Great sandy straights (Hervey Bay) which would be idea for cage culture due to its sheltered nature they are declared no input areas i.e. only farming of species that require no inputs such as feeding may occur in such areas so no sea cage farming whereas every other state and almost every other country worldwide is very supportive of marine sea cage farming as well as commonly culturing fin fish in cages in freshwater lakes, reservoirs and dams. With the increasing heated conflict between Recreational and professional fishes for sometimes limited resources e.g. The Great Sandy straights and greater Hervey Bay as well as other areas up and down the coast as well as increased expansion of other projects also impacting upon fisheries and fisheries resources and areas such as ports and reclamation projects etc. Marine aquaculture may possibly be seen/ promoted as an alternative to licence buy backs in an effort to reduce pressure upon fisheries or the effects of such, upon the impacted families and or associated businesses and staff and the flow on effects upon the local communities. Marine Aquaculture could also see an influx of/ or a, new revenue source for previously effected communities or as a means to prevent the urban flow or migration of the younger generations away from their traditional rural back grounds by providing not only direct jobs but also the flow on effects of creating more cash flow thru impoverished communities and the associated effects upon employment rates in such communities where supply and service industries currently in economic down turn or closed due to financial uncertainty from reduced product sales or thru put may in fact expand as a means of value adding aquaculture products supplied on a non-seasonal / year round basis from marine and or expanded aquaculture production. Worldwide marine aquaculture (sea cage farming) is seen as a low cost alternative in comparison to traditional land based aquaculture with the Courier mail recently publishing an article (Ask A Farmer 3rd Aug2014), quoting one large pond based prawn and fish Aquaculture farm having electrical costs totalling One Million dollars per annum so with their quoted production levels of 1000 tons per year which means that their electricity alone adds \$1 to their cost of production and with electricity, fuel and other associated costs continually on the rise marine aquaculture maybe a viable alternative direction for Queensland aquaculture to take in order to remain competitive on a global scale.

The general public complaints such as bad for tourism seems to go out the window against locally produced fresh seafood on shop shelf's and restaurant plates, or with the farms even becoming tourist attractions themselves such as the salmon farm tours in Tasmania and tuna farm tours even going so far as swimming with the tuna in South Australia.

Or the visual impacts of marine farming particularly cage farming which if you have ever seen a pearling/ oyster lease or mussel farm and the associated floats which is allowed in areas such as the Great sandy straights marine park you have to wonder what the difference is to a carefully constructed marine cage farm which now due to improved engineering can be situated further off shore out of sight of land or totally submerged completely out of site.

As navigation hazards well as part of the conditions they have to be clearly defined which also negates this argument as well.

Marine farming could be seen as an alternative to professional fishing and licence buy back schemes in areas of conflict with other users particularly recreational fishers and as such may actually reduce conflicts in the wider area? But I do not foresee any greater conflict issues that already occur with existing port facilities and or developments or other similar developments where these issues also occur.

The Impacts upon threatened species of marine farming is uncertain and is certainly no more than the current shark netting program, and in fact would most likely be less due to the increased activity around the Aquaculture farms and the shape of the systems used round or square cages rather than long lengths of net running either parallel to shorelines or perpendicular to such. Also where is the evidence of this, if this is such a major impact? I have personally seen and heard of anecdotal evidence of marine life swimming quite happily in and around marine Aquaculture leases in both Australia and worldwide. An certainly no more of less of an impact than that of the construction of oil and gas, dredging , port expansions and or developments, and the increased shipping and of boating movements that come with such and the expanding populations.

As far as impacts of diseases yes this is a possible concern as it is with all intensive farming, but these diseases are far more likely to have come from the surrounding environment and native fish than from the cultured stock themselves. But with better management practices now available such as vaccination, improved culture methods and technologies now available and nutritional and other health advances (e.g. diagnosis and treatment) in recent years disease is becoming less of an issue than it was previously. In relation to concerns of transfer from the cultured species to the native species as it is most likely that these diseases came from the surrounding environment and native species in the first place. It then is more likely that the native species will show an increased or far greater immunity to these diseases than the cultured stock and because of the spatial differences between intensive culture and native populations it should also help in the prevention of any potential issues taking hold in the natural environment. This also actually supports Marine aquaculture on the East coast as it means better access to services such as veterinary, pathology and other suppliers.