

**Request 40/2008
Governance Framework
Open Ocean Aquaculture Project**

**Final Report
to the
Western Australian
Aquaculture Development Council**

**Prepared by: Foundation Capital
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SCHEDULE A

New South Wales

Tasmania

Victoria

South Australia

Map of Western Australian Coastline delineating State waters

Executive Summary

Overview of the OOA project and the ADC's objectives

The Aquaculture Development Council (“ADC”) of WA has identified finfish open ocean aquaculture, using surface and submersible sea cages, as offering the most viable form of aquaculture for Western Australia, with the best competitive advantages to achieve annual production of \$250-500 million per annum within a 15 to 20 year time frame.

The ADC has based its findings and determined its objectives on several years of market, technical and financial research and studies conducted by various expert consultants.

Established aquaculture around Australia operates within sheltered and near shore waters as opposed to offshore waters.

Where farms are located in deeper, exposed, open ocean areas subject to harsher oceanic and weather conditions, this form of aquaculture is known as “open ocean aquaculture” (“OOA”).

There are no known finfish OOA projects operating in Australia.

In this report, the distinction is made between OOA and “ocean aquaculture” which includes all ocean farming including in shore and sheltered ocean waters.

The ADC has determined that there are few areas within State waters suitable for large scale “ranching” of finfish.

The ADC has determined, as one of its major objectives, to conduct a proof of concept sea trial to:

1. prove the technology needed for OOA in Western Australian waters under WA oceanic and weather conditions, as technology operating requirements in other areas cannot be assumed to directly apply in WA. and
2. to deliver information to assist the existing industry and potential new proponents in starting a commercial venture.

Current Regulatory Environment

The State of WA has jurisdiction over coastal waters up to 3 nautical miles from its Coast and the Commonwealth outside 3 nautical miles. There are exceptions, for example, waters surrounding off shore islands falling within State jurisdiction. A map of the WA coast which delineates the State from Commonwealth waters is attached as Schedule A.

The ADC has determined that large scale finfish aquaculture will only be possible in the open ocean off the WA coast due to a lack of suitable inshore sites. As a consequence OOA will need to be in Commonwealth waters.

An investment critical requirement, for any private investor, will be the granting of long term tenure over ocean areas and the granting of all operating licenses and approvals before the commencement of operations.

Environmental approvals need to be granted with no ongoing conditionality once the operating parameters for the license have been agreed.

As there is no certainty as to when and if the Commonwealth will agree to granting tenure over Commonwealth waters for OOA or for the processes of environmental and other Commonwealth approvals it is considered that commercialising OOA in Commonwealth waters is not viable at this time.

It is recommended that the ADC broaden its focus to include the development of commercial finfish farming in State waters.

The State will also need to providing an investor friendly environment to fast track new pioneering ocean aquaculture projects in State waters.

WA has not developed the approvals processes and a “facilitation” culture within government (such as having established designate aquaculture zones with pre approvals in place or an agency to co ordinate “one stop shop” facilitation of governmental approvals) comparable to those of the majority of the other States and the NT.

Investment in finfish OOA is therefore unlikely to be attracted from outside the WA fishing industry until WA’s investment environment is competitive with the regimes in place interstate.

In conclusion: WA is not investor ready to attract new investment in ocean aquaculture.

It is acknowledged that other initiatives being undertaken by DOF and the ADC are currently being pursued that Foundation may not be aware of to address issues raised within this report.

Foundation recommends that DOF/ADC reviews its plans and objectives to give priority to:

- 1. reforming the regulatory framework and approvals processes**
- 2. establish designated zones in State waters**
- 3. better resourcing and empowering of the ADC to be the agent of change**
- 4. establish a seed fund as recommended**
- 5. support existing farms to the fullest extent possible**
- 6. establishing an approvals co ordination agency**

The POC Sea Trial should be given a lower priority in light of the lack of interest from prospective investors and until the regulatory situation is resolved between the State and the Commonwealth for OOA.

Potential Funding Models

The concept of fast tracking the development of large scale finfish OOA off the coast of Western Australia from a start up was formulated at a time preceding the Global Financial Crisis when the global economy was buoyant and funding was relatively easier to obtain for new ventures.

There are no privateers identified that expressed any “serious” intent to commit to either:

1. provide funding for the POC Sea Trial or
2. seed an investment to pioneer a start up finfish OOA of the magnitude to deliver the size of venture envisaged by the ADC to be world competitive.

Foundation did not receive any strong enthusiasm from prospective investors for the concept of large scale finfish open ocean aquaculture off the coast of WA. The reservations expressed by investors (aside from the regulatory issues) are that:

1. the finfish OOA commercialisation model, as envisaged by the ADC, for Two Rocks, may not attract funding of the magnitude required to reach critical mass, in the current economic environment.
2. the concept of large scale “ranching” of a fast growing, low value fish is too high risk.
3. the scale of the farm, (given Two Rocks offers a pristine ocean environment with the requisite existing on shore infrastructure and suitable ocean environment) may not be any more competitive than alternatives in the Eastern States or in South East Asia.
4. WA’s small domestic market, higher cost structures and more regulated environment places WA at a disadvantage against large scale ocean aquaculture in Asia, Southern Africa, South America and New Zealand when competing for scarce investment dollars.

These were the primary concerns raised by prospective investors that are “front of mind”. The more technical issues to do with farming technology and fish species were of less importance to those to whom Foundation interviewed.

Foundation was not briefed to identify or analysed any comparable international OOA financial data for projects that have attained profitability.

It is recommended that a study be undertaken by the ADC of profitable precedent projects to support the financial analysis in the Opportunity Study prepared by Ordnexia and TAFEWA Challenger (December 2007). A comparative analysis would be a useful tool to validate the timeframes, funding requirements and rates of return on investment for an OOA project of greater than 2000 tonnes of annual finfish production.

The lack of enthusiasm from the private sector, added to the fact that there is no Federal process for granting long term tenure and approvals to establish a commercial operation in Commonwealth waters (at Two Rocks or elsewhere) leads us to the conclusion that there is no commercial viability to the OOA project at this time. However that is not to say that with the regulatory issues resolved and an improved investment environment the situation might change.

It is therefore seen as prudent to conduct a POC Sea Trial to de risk the concept of OOA in WA and to add more certainty by proving up the underlying assumptions that are critical to the viability of a large scale finfish OOA project (as far as possible).

It is recommended that the ADC proceed with the POC Sea Trial at Two Rocks if funding is able to be procured through DOF and/or other government programs. It is not recommended that funding be sought from the private sector at this time.

Assuming the POC Sea Trial is funded, this nonetheless leaves the ADC with only “one shot” to develop ocean aquaculture.

There is support from the local fishing industry and other investors to embrace a more niche market orientated ocean aquaculture industry if financial support from the WA government is available to help mitigate the high start up risks inherent in these ventures.

The attractions in embracing a wider number of pioneers operating in State waters are that:

1. activity will be diversified and spread along the coast line
2. government will not be trying to pick winners
3. a larger pool of private start up and seed private capital will be invested
4. the risk of success will be spread over a greater range of species, aquaculture technologies, management capabilities and experience
5. risk will be mitigated by privateers utilising existing infrastructure in their local waters

Funding from the State’s Royalties for Regions program was identified as a possible source to fund \$20 million to seed ocean aquaculture projects in State waters.

Prospective privateers were identified who have or would be interested in projects at several regional locations along the coast between the Kimberley and Esperance.

The State Manager Agribusiness (includes fishing etc) has confirmed CBA’s willingness to lend to ocean aquaculture projects where there is secure, long term, transferable sea bed/water tenures. The CBA lends against cray pot and pearling licenses.

It is recommended that the ADC :

1. **commission a study to determine the economic benefits to justify the State establishing a seed investment fund to “kick start” regional ocean aquaculture.**

2. **recommend to the appropriate ministers the establishment of a \$20m Royalties for Regions Aquaculture seed fund (assuming the study in (1) proves up the justification).**
3. **apply through DOF for a budget allocation to fund the POC Sea Trial.**
4. **Commission a business plan for the establishment of OOA at Two Rocks including the availability and suitability of the existing infrastructure, the costs and the commercial arrangements acceptable to the Yanchep Beach JV and the level of contribution that they would make if providing these facilities on a free of charge or commercial basis.**
5. **Try to identify overseas successful OOA ventures that would serve as precedents to validate the financial feasibility of a WA OOA project.**
6. **The future role of the ADC be broadened to:**
 1. **promote investment in aquaculture in WA**
 2. **to allocate and administer the seed fund**
 3. **to coordinate and facilitate all governmental approvals required for new aquaculture projects**
 4. **monitor the progress of the projects**
 5. **collaborate with DOF and DEC to provide research and monitoring of the project outcomes**
 6. **disseminate information in order to attract new investment**
 7. **drive the creation of zones for ocean aquaculture that would have pre approvals for new ventures**
 8. **make recommendations to the Minister for the granting of licenses and tenures for new aquaculture projects and develop a bankable tenure system over sea beds.**

Governance Issues and Framework

Foundation has been asked to provide a basic overview of why appropriate governance is important to a project like the OOA project and some of the key governance principles that should underpin the governance of such a project.

The ADC has determined the following governance objectives for the OOA project:

1. **Maintain the Departments and the Governments credibility and reputation.**
2. **Ensure that the OOA Project is managed appropriately and that interactions with industry are transparent and equitable.**
3. **Develop a framework for management that is in keeping with Government ethical standards and principles.**
4. **Define the rights of all parties that may become involved.**

Substantial commentary is provided in the body of this report on various aspects of governance for the OOA project. The Victorian Department of Treasury and Finance have published a very good

Contract Management Guide for Partnerships Victoria (June 2003). This guide covers many aspects of governance that may prove useful.

One of the principle concerns is ensuring that stated objectives for OOA at Two Rocks will be achievable and forthcoming through the regulators and on commercially acceptable terms.

Caution needs to be exercised in publicising OOA at Two Rocks, when as is the case at the moment, there is no ability to commercialise OOA in Commonwealth waters.

Observing transparency, with fair and open processes, will ensure good governance. It is recommended that:

1. a probity auditor oversight any evaluation and selection processes and evaluation criteria.
2. a register of conflicts should be established.
3. all involved personnel, including the ADC members, consultants and departmental officers, be required to complete declarations of interest.

Investor Discussions

In discussions with interested investors there was strong support for finfish aquaculture in WA's ocean waters albeit most expressed reservations as to the viability of OOA.

Prospective investors universally expressed frustrations with the WA government's past dealings with the industry. It is not appropriate to single out specific incidences in this report but to make the comment in the strongest possible terms that the treatment of proponents trying to establish new ventures in aquaculture has been nothing short of scandalous and no serious new investment should be expected without a "sea" change (pun intended) in attitude within government to facilitate ocean aquaculture.

Examples of comments from some of the interviewees are paraphrased below:

Large Private equity investor with interstate aquaculture interests

"don't think small.....gazette big areas.....target 20,000 to 50,000 tonnes annual production.....grow 10 species in "superlative category"..... Relative costs structures skewed against Australia.....focus on \$ per unit of output.....Sea Trial an important step that private enterprise must support.....numbers not feasible.....budget for the sea trial \$4-5m.....would not be a participant in the trial.....would seek out the best location nationally.....49 year tenure needed.....tenure even exclusive not sufficient... cannot take it seriously - budget too small to gather the intelligence.....in favour of proving up the technology and learning where the pitfalls lie.....what are the feeding regimes?.....Government authorities have mistreated the industry.....glad he doesn't have any fishing interests in WA.....asking for "steps of faith" from industry is not going to work.

CEO - Large Fishing Industry Company.

“Aquaculture (generally) yes....here (WA) Jury is out..... much cheaper overseas..... too much regulation...WA competes with Eastern Seaboard for Australian market.....but ES can do it more cheaply....not a lot of protected water but there are areas, Esperance, Prince William Sound, Coen Bay....WA should learn from SA.....very hard to get there in one leap.....SA evolved into a much broader industry from a gutsy initial government initiative in Spencers Gulf...sees a role for government to create hubs (zones)...new aquaculture industry will be in conflict with existing wild fisheries infrastructure.....Pt Lincoln existing industry gave new Tuna enormous leeway....that paid off..... no deep understanding of the logistics (of OOA)... would commit resources to assess feasibility....reservations about the end game...intuitively not convinced....return on effort unlikely to be that exciting....do yellow tail kingfish in trial... otherwise others will take the money off the government....trial needed for govt to learn....tenure not of sufficient value to spend the hard dollars.... No! if no long term tenure....if govt subsidising with hard dollars then would be interested.....wants the right to pick the best farm site.....no issue on public disclosure.....sea trial would have a look at it if govt put dollars on the table....could provide vessels and other resources.....government to provide fingerlings, monitoring, commitment from equipment suppliers.....wants to deal with only one partner i.e. govt.....Questioned what is the prize?”

CEO- Existing Aquaculture Company

“Would like to see the support go to the existing industry...Two Rocks not of interest...but outcomes could be beneficial if public...Sea trial a management exercise....fish husbandry, treatment of parasites, feeding and harvesting.....why 10nm off coast....happy to go up to 20nm off Broome.....30m of depth enough for submersible cages.....private investors want to do it in their own back yard...WA needs to have a performance based environmental model....sort out the EPA....push for a separate ACT-needs to happen....EPA and DEC need to be in one department and processes sped up....cost of fish food high compared with ES...OOA needs inshore capacity to help drive economies of scale.....labour more expensive than TAS (30-40% higher) ... competing with resource projects/industry for labour and services....production > 50,000tonnes would support feed milling in WA for aquaculture...cost <\$400 tonne.....develop service industry....grading equipment...WA need to study industry in Norway and their infrastructure.....1x service vessel delivers up to 2,500 tonnes of feed to all farms in one trip”

CEO - Existing WA Industry Company

“OOA is high risk...driven by depth of water.....WA not much rougher than Pt Lincoln.....logistics harder with submersible cages....no valid reason not to use surface cages.....lack of tenure in Commonwealth waters, yellow tail kingfish and Dept of Environment all barriers...OOA will be the next failure....ADC needs a reality check....no industry involvement on Council (with one exception)...ADC doesn't want to hear reality....WA industry undeveloped....leap of faith...aquaculture needs to be developed incrementally using proven technology.”

Options for Realistic Development of the OOA Project

The realistic development pathways for a substantial marine finfish OOA project and governance options should not be constrained to one or two preferred concepts. History demonstrates that many substantial industries have developed rapidly once government creates the right settings.

A case in point is fast ferry manufacture in WA and the emergence of Austal as a world class leading designer and builder of vessels operating on two continents that is now forging a new future in naval vessel construction. This success was not realised without considerable WA State government assistance to the WA shipbuilding industry in its formative years including concessional loans/grants, provision of foreshore land at Henderson, employee training through TAFE, and Government funding for marine infrastructure such as breakwaters.

The Tasmanian salmon industry has also developed to a size comparable to that envisaged for OOA through incremental growth, starting from small in shore farms established by a multiplicity of operators, now aggregated into 3 majors who have reached the scale to develop production, distribution and logistics on a national and international scale. The size of the Tasmanian industry now requires it to embrace OOA in order to continue to expand.

The concept of developing OOA “in one large leap” is a higher risk strategy that will be of interest to a limited number of investors, if any. Risk is proportionately higher with the speed of development given all of the associated elements that need to be drawn together within a condensed time frame by maybe only one or two operators. For example: the development of new markets, the logistics for large scale production and the economies for large scale feed production and handling, leaving aside the technology and farming risks.

OOA should be encouraged, but not at the expense of pursuing other realistic paths.

One being to also allow the industry to develop in the least hostile water conditions, utilising existing infrastructure and allowing the operators to concentrate on getting the on farm feeding, husbandry and management regimes, marketing and distribution sorted out. A pre determined path should also be put in place for farm migration to OOA, as the size of operations dictates and the attendant risks mitigated, and the power exists to grant the long term tenures.

The ADC (and DOF) must address the following in order to develop an investment ready and friendly environment in WA that will be able to compete successfully with other States and the NT for investment in ocean aquaculture in general and for the OOA in particular:

- 1. Designate Ocean Aquaculture a “strategic industry” to provide a long term alternative future to the fishing industry.**
- 2. Create a new culture of facilitation in government to sponsor and promote aquaculture including a “one stop shop” co ordination of approvals.**
- 3. Establish aquaculture zones for all suitable areas (including those in State waters) along the WA coast where privateers want to engage in ocean aquaculture serviceable from existing coastal ports/harbours/marinas.**
- 4. Zones should be established where all necessary approvals are in place (particularly environmental). Adopting performance based flexible models where licensees operate**

within pre agreed parameters without the uncertainty of changes to fundamental operating conditions and over control and regulation that could place the project in jeopardy.

- 5. Fast track the development of protocols for granting aquaculture licenses, approvals and tenure in Commonwealth waters.**
- 6. Long term tenure for water leases (minimum 21 years with further 20 year options of renewal) needs to become the model and not rolling annual renewals which place the operators at a severe disadvantage in attracting investment and creates uncertainties.**
- 7. Approvals and water lease application grant process timeframes need to be bench marked to Australian best practice (typically 6 weeks is the best and 6 months - the latest acceptable for leases within designated zones)**
- 8. Environmental approvals need to be handled by one agency.**
- 9. ADC's role should be expanded as set out within this report, it should be independent of DOF, include more industry representation on its board, have its own operating budget and a small full time executive to resource its expanded role.**
- 10. The duality of the roles of Aquaculture Council of WA and the ADC, both receiving government funding, requires rationalisation.**
- 11. A new Act specifically regulating the aquaculture industry is desirable.**

INTRODUCTION

Scope and objectives of the OOA Governance Consultancy

The Aquaculture Development Council (“ADC”) has commissioned Foundation Capital to:

...“prepare and discuss workable frameworks for the structure and governance of private and public sector collaborative arrangements that will form the OOA project that ensure:

- The development and operation of the OOA Project is managed and governed in accordance with the best practice principles of transparency, equity and accountability and ethics that would be expected of a collaborative arrangement involving the public sector;
- The OOA Project is structured and managed in such a way that private sector participation is realistically facilitated;
- The OOA project is structured and managed in such a way that it meets government requirements for co operative arrangements with the private sector; and
- The OOA project is structured and managed in such a way that it optimally promotes the development of a sustainable open ocean aquaculture industry in Western Australia”

Statement of Requirements of Foundation Capital

1. “To optimise the probability of success of the OOA Project, the ADC requires an ownership and investment structure and governance framework for the OOA Project and which has input from several potential collaborative partners”.
2. The development of an application and selection process for potential partners that conforms to the required public service standards and is also able to stand up to community and industry scrutiny. Similarly, an investment and ownership structure that meets both the Government and private partner’s requirements needs to be established.
3. An ongoing governance framework must be established that defines the interactions between the partners, the responsibilities that each partner holds (e.g. decision making, financial contribution, and project management) and specific reporting requirements.
4. Contributions from the Department must be in the interests of the public good, rather than commercially supporting a specific company or companies. It is intended that the proof of concept farm will evolve into a commercial enterprise but it will be the private partner or partners that determine the commercial success of the project.

Foundation Capital is also to interview existing and prospective industry collaborative partners and capital providers/ investors to determine the most appropriate ownership and investment structure to facilitate the private sectors involvement in the OOA Project.

Foundation Capital is to also consider other funding sources.

Proof of Concept for Sea Trial for an OOA Farm

The OOA Project involves the establishment of an offshore proof of concept trial farm using gravity (surface) and submersible sea cages. The proposed farm location is 10 nautical miles offshore from the town of Two Rocks, approximately 70 km north of Perth. The farm will trial the grow out of yellowtail kingfish (*Seriola Lalandi*), a native species found in waters off Perth, and possibly other selected species grown in a variety of cage types. In order to establish the farm a collaborative relationship between government and private industry is required, the scope of which is yet to be determined. The ADC has subsequently agreed that the specie(s) to be trialled do not need to be only yellowtail kingfish but can include any other indigenous species.

The budget for the POC sea trail as set out in “An Opportunity Study of an Open Ocean Aquaculture Project in Western Australia” by Ord Nexia Pty Ltd Chartered Accountants and the Aquaculture Development Unit of Challenger TAFW WA, dated 17th December 2007 is:

	1x each	2x each
	cage type	cage types
Total capital expenditures	\$641,900	\$953,132
Total Operating Expenditures	\$1,172,415	\$1,710,186
Total Costs	\$1,814,315	\$2,663,318

The proof of concept Sea Trial will, if successful, substantially de-risk the start up of and facilitate investment in a commercial OOA venture(s).

However there were no “hard” indications from local, interstate or offshore investors of their willingness to fund the Sea Trial. Foundation does not rule out the likelihood of there being private partners in the future if long term tenure is available for commercialization of OOA.

The MG Kailis Group has expressed an interest “to have a look at it” if the State was to make funding available for the POC Sea Trial (the company has spare vessel capacity that could be suitable). Similarly Foundation is of a view that the Yanchep Beach JV would provide facilities for the Sea Trial if approached.

Yanchep Beach JV Pty Ltd did provide some initial indications of investment support for the POC Sea Trial (in part motivated by their desire to see OOA established at Two Rocks) in order to support their ongoing property development activities at Two Rocks. Their support appears to have waned with the likelihood of there being no prospect of a financial return from the Sea Trial and therefore no ability to recoup any capital invested in the sea trial. It is also likely that not all the joint venturers were in agreement with co funding the Sea Trial.

Yanchep Beach has indicated that they have no interest in investing in the commercialization of OOA at Two Rocks.

To pursue the current objective of attracting private investment in a large scale OOA venture will therefore require the POC Sea Trail to be funded in part or its entirety by the DOF.

Public Private Partnership Investment Model

Foundation having undertaken the assignment and interviewed many of the prospective partners identified by the ADC has reached the conclusion that a Public Private Partnership (“PPP”) arrangement is not an appropriate investment structure for the OOA project.

There is no commonality in objectives between the potential partners and no interest on the part of the privateers to invest in the POC Sea Trial. The concept of a PPP could at best only apply to the Sea Trial.

This is not to denigrate the concept or potential of a finfish OOA industry off the coast of WA.

It is universally acknowledged that there is no identifiable public role in the commercialisation of OOA.

To develop a large scale finfish OOA venture on the coast of WA from start up will require a substantial capital investment. No indication was received that the existing fishing industry would or could provide that level of capital.

Foundations conclusion’s are:

1. The critical inputs for the POC Sea Trial of the partners (ADC and privateer) have not been quantified or identified. Foundation has not, at this time, been advised what if any funds DOF/ADC are prepared to commit to the POC Sea Trial and no interest in investing has been shown from the private sector.
2. The roles of the partners will be dictated by their commitment to provide capital and services and therefore cannot be specified.
3. The public and private partners will have different “modus operandi”. The ADC is investing taxpayer resources in a “research project” and the privateer his own capital or that of his shareholders in a fledgling investment.
4. The fact the OOA project is not investor ready to be commercialised post a successful Sea Trial highlights the differences in each’s objectives.

5. The current financial environment is not conducive to high risk early stage pioneering investment.

Typically PPPs have been used to fund the development by the private sector of large public infrastructure projects and the privatisation of existing government services. The concept of a PPP does not readily fit this model for the POC Sea Trial which is essentially a research project.

A more conventional approach would be for the ADC to engage privateers to provide services/equipment on a normal commercial basis without having to offer earn-ins on the commercial phase which at this time are problematic.

FUNDING MODELS

Commentary on Industry Interest in the OOA Project

Foundation, in approaching potential investors (including members of the WA fishing industry) and their representative organisations (WAFIC and ACWA), received strong support for the development of an Ocean Aquaculture finfish industry in WA and to counteract the longer term decline in the WA wild fishery and stocks.

A proof of concept sea trial in open oceans to demonstrate off the WA coast is desirable and would support the establishment of OOA.

However Foundation did not receive any level of interest from privateers to provide seed funding for or to participate in the Two Rocks POC Sea Trial at this time given the uncertainty as to future approvals and tenure.

Comments are summarised from industry participants:

AUSTRALIAN SOUTHERN BLUE FIN TUNA - Brian Jefferies CEO

They have had experience of trying to do Ocean Aquaculture in WA. Found the West Australian system of approvals drawn out over years not months with no certainty of tenure. Australian Blue Fin Tuna would not contemplate investing in Western Australian aquaculture until there was a major change in attitude, regulation and tenure.

AUSTRAL FISHERIES - David Carter CEO.

Austral has a partnership with "Pescanova" one of the world's largest aquaculture companies, totally disenchanted with the West Australian approval system for aquaculture and is working with two other States to carry out large scale Ocean Aquaculture. Was highly complementary of assistance received in NT for a project they were looking to develop there. Did agree that Western Australia had the best bio-security protocols for aquaculture, will not look at Western Australia for aquaculture investment until there is a quick and lasting approval system in place and long term leases.

JOCK CLOUGH - Chairman (aquaculture companies, South Australia and Victoria.)

He has tried to invest in Ocean aquaculture in Western Australia (Esperance). The length of time taken and the uncertainty of the outcomes from the approval system in this State together with no long term lease arrangements convinced him to invest in the Eastern States. Jock Clough would not look to invest in ocean aquaculture in this State until there are major changes to the approval systems, the regulation of hybrid species and guarantees of long term secure leases.

NORTH WEST SEA FOODS - Kel Brown Managing Director.

Would only be interested in investing in Open Ocean Aquaculture, if proved by the successful completion of a trial off Carnarvon where their major operations, processing plant and servicing facilities are based. NW would need to see a major change in attitude by the State to the certainty of the regulations surrounding ocean aquaculture and a commitment to long term leases.

KAILIS BROS - Alex Kailis Managing Director.

Kailis Bros have operated Ocean Aquaculture in South Australia for over twenty years they have tried in Western Australia. Approvals took years, no political will to support ocean aquaculture in this State, too much regulation and no long term leases. Kailis would only consider investing in Western Australian ocean aquaculture if they could choose the sites and believe zones should be established up and down the coast that are not in conflict with the fishing industry's infrastructure.

LATITUDE FISHERIES -GERALDTON - Erica Starling CEO.

Latitude Fisheries currently hold an approved 800 hectare ocean aquaculture lease at the Abrolhas Islands. Requirements for further development and investment:

1. Want to gain 21 year lease of the 800 hectare site (current annual role over) with the option of a further 21 years (have already invested \$1 million into the site in the approval process).
2. Will accept a first 3 year use or lose it clause in the lease.
3. Immediate access to a fully approved Ocean Aquaculture site of 800 hectares.
4. Situated on the North West Tip of Pelsart Island the most Southerly Island in the Abrolhos group.
5. The site is on the edge of the Zeewick Channel in 30/40 metres of water with a constant water change.
6. Water temperature suits a wide range of fin fish species.
7. Latitude Fisheries are offering a portion of the site and will provide all of the logistical support.
8. The trial site gives good protection from the Southerly busters but is wide open to the Northerlies with swell heights to nine metres or above.
9. The site would enable the trialling of open Ocean sea cages both surface and submersibles.

10. Latitude Fisheries prefer surface cages but are willing to try submersibles under trial conditions.
11. Latitude Fisheries would welcome additional Fisheries research effort on the site for the trial period with any information gathered being available to the Industry in general.
12. Included in the logistical support is a large Trawler capable of holding 20 tonnes of feed at a time accommodation for ten people and capable of staying on site for several weeks at a time.
13. Latitude Fisheries currently have a sea cage anchored in the Geraldton harbour and in conjunction with Geraldton TAFE are successfully growing out mulloway.
14. TAFE Geraldton has an underutilised marine research facility with expertise available for ongoing research.
15. Latitude Fisheries have processing, repair and engineering facilities available in Geraldton.
16. Latitude Fisheries are a large well resourced Company with generational experience in the wild fishery.
17. Latitude Fisheries have experience in Ocean aquaculture through their activities in black pearls and yellow fin tuna farming
18. Erica Starling (Boschetti) sits on the board of Sea Food CRC in South Australia and is well known and respected in the Fishing Industry throughout Australia.
19. The Aquaculture Development Commission would be required to supply the trial sea cages, supply researchers and contribute cash towards staff wages required during the trial period.

MARINE PRODUCE AUSTRALIA - Guy Westbrook - General Manager.

MPA has a limited lease in Coen Bay in the West Kimberley's producing salt water Barrumundi. MPA has requirements for further development and investment. There needs to be major changes in attitude and efficiency by WA State Government Departments especially DOE/EPA. It has taken MPA 3 years to obtain their limited area licences and now the approval is being appealed. Western Australia should match the Northern Territory by giving fixed time lines for all approvals with no appeals. 21 year leases required with option of a further 21 years.

The track record

It is salutary to reflect on the number of failed aquaculture ventures, leaving aside those that died from attrition. Failures in recent times include:

Jurian Bay	Yellow Tailed King fish
Albany	Abalone

Geographe Bay	Mussels
Kununurra	Fresh Water Barramundi
Esperance	Southern Blue Fin Tuna
Esperance	Abalone
Exmouth	Prawns
Exmouth	Oysters
Exmouth	Dolphin Fish
Exmouth	Spotted Cod

Structure, Financing and Management

Financial Structure POC Sea Trail

It is assumed the Public interest will not be well served by taking an equity interest in the commercial operations that may take over the project if the Sea Trail is successful. A consideration is included below of structures for a private company and a limited partnership which offers continuity of structure from the sea trail into the commercialisation phase and for the purposes of securing the specific approvals etc and contractual obligations to allow a privateer to proceed to commercialise the project at Two Rocks.

No privateer is likely to enter into part funding the POC Sea Trial without some preferential position on the granting of sea leases and other approvals or on the open disclosure of the trial results etc. However where the arrangements are purely those of a paid contractor as in 1(a) below no consideration should be given to the granting of preferential rights or limitations placed on the disclosure of results, alternatively where there were contributions made at less than commercial rates (i.e. recovery of direct costs only or on a contributed services basis or on a basis of collaborative funding) then there should be some rights to preferential treatment afforded the privateer.

Clearly the privateer has to be offered some competitive advantage for his collaborative investment.

There are limited options available in structuring a “collaborative partnership” between The Department of Fisheries, ADC and the private sector to finance the POC Sea Trial.

These are:

1. Assuming no private investment:

- a. The Government through DOF/ADC funds and contract manages the POC Sea Trial. Contractors would be secured on normal commercial terms through the usual government tender processes. The project would be scoped and where feasible contracts let on a fixed price basis.

Advantages: simple and well understood processes, no conflicts in competing outcomes, no restriction on publication of results,

Disadvantages: 100% of funding needs to be provided by the government, no commercial driver or validation by the industry as to the commercialisation of OOA even if the POC Sea Trial is successful no hold up waiting for approvals re tenure or licensing etc.

- b. An alternative would be to **engage a contractor on a “share farming” basis** where DOF/ADC would fund all of the in sea infrastructure, fingerlings, feed and biological and environmental research and monitoring and the share farmer would provide the vessels, fuel, man power and operational management and administration. The share farmer could take the proceeds of harvest and may need a level of cost contribution based on the harvest outcomes with the government retaining the ownership in the in sea infrastructure. If the Trial was successful then a selection process for the OOA site and licenses could be undertaken with the infrastructure offered for sale as part of that process if all approvals were then in place.

Advantages: the sharefarmer is taking a commercial risk and is responsible for funding the daily operations, this structure better aligns the risks to each partners responsibilities, contribution of vessels at a time of under utilisation of capacity, provides a degree of commercial validation and buy in to the OOA concept, with a possibility of commercialisation following a successful Sea Trial out come.

Disadvantages: The sharefarmer will in all probability require a cash underwriting of his costs assuming the Sea Trial was aborted or failed or the forecast harvest value if successful is sub economic, it still requires the ADC to commit to being able to deliver the tenure and approvals if the privateer wants to proceed to commercialisation, some preferential position will need to be offered up.

2. Assuming a privateer is prepared to invest in the POC Sea Trial:

- a. The privateer is offered a **conditional loan equivalent to the value of the cash and other inputs** to be provided by DOF/ADC as their contribution to the collaboration. The value of the DOF/ADC inputs would need to be determined and agreed. The privateer would then contract those services. The terms of the conditional loan would set out criteria for its conversion to a grant at the conclusion of the POC Sea Trial provided the privateer has met his obligations.

Advantages: in addition to those in 1(b) above this arrangement will provide a better taxation structure and will mitigate some of the risk of loss if the privateer has Australian taxable income from other sources, the role and responsibilities of DOF+ADC become more passive, clearly defined roles, the privateer will be responsible for the overall project funding and the public contribution is not as open ended.

Disadvantages: Disadvantages: more complex, less control over the day to day operations depending on how well the Loan and contractual agreements are crafted and the contract is managed, preferential position will be required, more difficult to attract funding with a lower public contribution, certainty of tenure and approvals if commercialisation is offered as part of the preference.

- b. a **limited partnership** between the privateer and DOF/ADC where each partner provides their respective services, equipment, funding and infrastructure at pre agreed values and shares in the out puts. The partnership would comprise limited partners, not involved in the day to day management and running of the trial with the unlimited General Partner being the manager. The shareholding in the General Partner would determine who controls the management. A partnership agreement would be required setting out the partners responsibilities and usual terms governing a commercial partnership. That is the ownership of the partnership for example (49% government:49% privateers and 1% the unlimited partner – NEWCO PTY Ltd whose shareholding is owned equally or 100% by one partner only or any other combination).

Advantages to this structure are:

1. this arrangement in affect provides limited liability to the partners. The General Partner being unlimited (but usually a limited company) responsible for the management partnership and owned and controlled by the partner with responsibility for the day to day operations.
2. pass through of tax losses to the partners in the year incurred and

3. common ownership of the assets of the partnership and their on sale at the conclusion of the Trial.

Disadvantages are:

1. it is more complex and sophisticated in its structures than the other alternatives and less well understood.
2. This arrangement might limit dissemination of confidential information if the private partner was a significant contributor to the partnership.
3. There must be commonality in the agendas and objectives of the partners.
4. Determination and agreement as to the value of non cash inputs
5. Whilst the contributions of the partners are limited cost over runs and unbudgeted requirements would need to be funded by the partnership to survive.
6. It may be DOF/ADC could negotiate a limited contribution to the partnership with a reducing scale as to its returns in exchange the other partner(s) agreeing to fund the over runs.

c. Incorporated entity - jointly owned

Advantages:

Limited liability, structure well understood by government and any private investor (local or foreign), an Australian registered company will be resident in Australia irrespective of the residence of its shareholders. Tax losses can be carried forward indefinitely (this may be of attraction to a foreign investor), shares in a company can be readily transferred with all the underlying request approvals etc (subject to normal good character tests in most leases and licenses where a controlling interest is transferred), The other advantages and disadvantages are the same 2(a) and (b) above.

A Project Director should be appointed with the concurrence of all participants tasked with the responsibility to manage and execute the Sea Trail and for the delivery of the trials outcomes.

Any project typical of that proposed for a collaborative venture with a high degree of uncertainty and risk requiring flexibility and quick decision making cannot be run by a committee. A suitable candidate should have a background in contract management and strong industry experience.

Partnerships Victoria model for Contract Management

The Contract Management Guide developed for the Partnerships Victoria policy framework developed – June 2003 is considered to be the most appropriate and relevant precedent that was identified) for developing a management framework for a collaboration with the private sector. It is a guide that is more appropriate to infrastructure projects arrangements but will provide a very useful basis for developing a management framework and is reasonably contemporary having been published in 2003.

OTHER SOURCES OF FUNDING

Other Matching Funding – Federal Programs

The ADC aims to attract and sponsor privateers, through collaborative seed funding. There are several other sources of funding that could be gained from leveraging Seed funding for projects from a privateer and the State.

It is only the projects with private investment that will be eligible for matching funding from the programs identified below as being available to the OOA project.

A comprehensive list of Commonwealth funding programs is contained in “The Fish Book II – A Guide to Australian Government Assistance Programs, Grants and Services available to the Australian Seafood Industry” 2006 edition and also at www.daff.gov.au/fisheries.

The Federal programs identified that could provide substantive funding (>\$250,000) for the OOA project and other ocean aquaculture seed or start up projects are:

1. Innovation, Research and Development (R&D)
 - a. Fisheries Research and Development Corporation (FRDC) and
 - b. Australian Seafood Co operative Research Centre

2. Primary Production (including fishing and aquaculture).

Food Processing in Rural and Regional Australia-this is a merits based, discretionary grant program targeted at funding (up to \$2 million) for projects to increase productivity and development and the adoption of new technology. Funding is dollar for dollar, excludes in kind contributions and excludes projects that have other sources of government funding. Grants are taxable and will affect the privateer’s ability to claim expenditure under the Tax Concessions of R&D. It is unclear whether the Two Rocks OOA project would qualify as it is not regionally located but does have regional applicability. Funding from this program excludes government and university applicants.

The FRDC and Regional Food Processors Programs are considered possibilities. However all three sources of funds are only accessible through competitive processes, may be in conflict with the management and control of the targeted projects (in the case of the CRC funding) or be too restrictive (i.e. require too high a level of R&D) in what is eligible to be funded.

It is recommended that any funding of the OOA project NOT be dependent on attracting other matching funding for its successful implementation.

Research and Development Concessional Taxation Benefits

The proof of concept Sea Trial may be regarded as R&D qualifying for concessional taxation treatment at 125 per cent deductibility under the Income Tax Assessment Act. A 175 per cent Premium (Incremental) Tax Concession and R&D Tax Offset are also available for projects with escalating R&D expenditures. To obtain the concession, R&D must involve innovation or high levels of technical risk and be carried out to acquire new knowledge or produce new processes.

The concession relates only to expenditure incurred directly on R&D, payments to Registered Research Agencies, in acquiring core technology and on R&D plant depreciated at 125% over its effective life.

Where a taxable entity incurs losses and cannot offset the R&D Concessional deduction in the year of income against other assessable income, payments made to a Registered Research Agency may be eligible for a tax offset refund equivalent to the tax that would have been saved.

The nature and the eligibility of the R&D of the claimant would need to be carefully assessed by a tax consultant.

Any structure therefore should be tax efficient and sufficiently flexible to allow the taxpaying participants the full taxation benefits as an incentive and minimise the projects front end tax leakage.

Conclusion: if the POC Sea Trial was eligible for the concessional R&D tax deduction and the privateer was able to utilise all of the losses from the project this would provide a significant incentive.

Seed Fund and Concessional Loans and Grants

The ADC needs to be the catalyst in changing what is perceived, within the wider fishing and investment communities, of an entrenched antithesis or indifference to aquaculture in WA within government agencies. The State Government should be encouraged to deem ocean aquaculture a “strategic industry”.

Whilst there are various sources of funding available, most on a matching basis, to privateers none were identified as being sufficiently generalist in their targeting to provide the working capital and incentive to privateers to mitigate the high risk of failure inherent in typical start up pioneering projects of this type.

There is a need for “cornerstone” funding and for the ADC to facilitate the approvals processes within government. DOF needs to provide research and monitoring support to smaller privateers who typically do not have these capabilities in house.

In order to drive what needs to be a “quantum step change” in culture and to change entrenched perceptions of bureaucratic indifference and obstruction towards new aquaculture projects it is recommended that the State establish a seed fund of \$20m to be managed by the ADC. The ADC should target to fully invest the fund **over no more than 3 to 4 years** in proof of concept trials and pioneering aquaculture projects. It is considered imperative to use the seed funds to create a wave of interest within the local and international fishing and aquaculture investment communities to kick start ocean aquaculture in WA.

It is recommended funding is provided by way of conditional/concessional loans that convert to grants upon the recipients achieving pre agreed funding objectives. Funding could be made available on the following bases:

1. Up to 100% for “strategic” proof of concept trials that are catalysts to the development of new projects and where there is no or insufficient private seed funding available. The proof of concept OOA finfish project at Two Rocks could be one such project.
2. Matching dollars to private investment dollars (i.e. up to 50%) to seed new and existing pioneering projects (the seed funds should also be used leveraged other funding and

through the FRDC, CRC, Regional Development and other Innovation and Productivity Program funding by the privateer).

3. The allocation of funding should be to promote projects offering diversity in species, technologies and locations for ocean aquaculture.
4. Preference should be given to existing fledgling pioneering projects given their shorter lead times and the difficulties they face in raising early expansion capital particularly where they are pioneering new technologies or species.
5. The aquaculture Industry in Western Australia has suffered from several high profile failures brought about by a range of circumstances mainly to do with lack of start up capital and the 3-5 years grow out period before any returns are realised. This together with no enthusiasm from lending institutions for Ocean aquaculture has stifled the Industry in this State.
6. To overcome these difficulties, it is suggested that the State through the “Royalties for Regions Scheme “ offer as an incentive a series of loans to the industry converting to grants on the attainment of agreed milestones typical terms would include:

Term:	Five years.
Interest rate:	Treasury rate plus 1%
Eligibility:	New or existing ocean aquaculture projects off WA
Security:	Fixed and floating charges, personal guarantees, security over land, chattel mortgages etc.
Conversion to a Grant:	On the attainment of agreed milestones, the loan convertible to a grant over five years or subject to attainment of milestones.
Milestones:	Development of an operating ocean aquaculture farm within three years of granting of lease and approval to operate. This is usually accompanied by an agreed expenditure on the farm during that period including minimum production tonnages, employment numbers and general economic benefit to the local economy.

Note on conversion to a grant the loan becomes taxable, the timing of the conversion should be as flexible as possible for the borrower.

THE PARTICIPANTS

Aquaculture Development Council Objectives

The ADC's objectives are:

"The ADC is clearly of the view that Western Australia must develop a marine aquaculture industry. Our fisheries are subject to the same pressures as everywhere else in the world where aquaculture is developing at a rapid rate.

The ADC has one key objective for the OOA project and that is to seed the foundation of a substantial marine finfish aquaculture industry in Western Australia. A substantial amount of work has gone into the view that the ADC has that the only foreseeable way that Western Australia will develop an aquaculture industry of any scale (\$250m to \$500m) is the development of a large competitive production base for finfish in an offshore environment. Most of the thinking end of town seem to concur with this view. This is primarily due to the absence of suitable onshore sites for finfish production from environmental, grow-out environment, social and commercial conflict and economic perspective that could support a large scale industry. A lot of work has also gone into identifying the Two Rocks site as the best site from a production, environmental and economic perspective for a large scale offshore production base.

There are a number of sub-objectives that need to be met for the OOA project to support the achievement of this goal:

- 1. De-risking of the project by removing the regulatory uncertainty (environmental approval and tenure) that currently exist with respect to the identified first site (Two Rocks);*
- 2. Demonstrating the suitability of relatively new offshore production technologies for WA wind and wave conditions; and their commercial viability with a selected WA fish species;*
- 3. Ensuring that a large-scale site has access to necessary onshore infrastructure at a cost that does not make an investment in the project unattractive;*
- 4. Local community support for the project and the potential of a large-scale operation;*
- 5. Development of a State approvals process and system of tenure that facilitates the expansion of the industry along the Western Australian coast line;*
- 6. An investable business case for the site; and*
- 7. A process that ensures that the project is managed in the interests of State Development while in the hands of the public sector and that this process optimises the likelihood of a successful transfer to the best party(s) in the private sector at the appropriate point in time".*

Private Sector Participant(s) Objectives

The objectives of potential private participants are to be determined post this report but reasonably expect to include:

- 1. To earn an acceptable return on investment commensurate with risk and returns on offer from competing projects.*

2. The financial return is typically measured as an Internal Rate of Return (IRR) over the life of an investment. An IRR > 25% p.a. for a start up OOA project is considered a minimum in order to attract investment in the current environment.
3. To maximize the financial returns through the maximization of the capital value realizable at exit (i.e. initial public offering IPO or trade sale). The capital value at exit is typically the “make or break” of an investment’s financial returns. It typically takes 5 to 10 years before a new venture achieves critical mass and an operating history of profitability that will allow an investor to exit at a capital profit. Long term security of tenure is therefore fundamental to an investor.
4. An investor will also seek to maximize his capital efficiency by the use of long term debt over the life of the investment.
5. Security of tenure and the collateral value of a venture are important in order to access affordable long term debt.
6. Leveraging equity through debt funding will significantly improve investment returns. The level of debt will be determined by the strength of the projects cash flows. It would be expected that as a project achieves consistent positive operating cash flows it will be able to raise debt to fund its expansion programs which should reduce its average weighted cost of capital.
7. Once confidence in the viability of the venture is established an investor will seek to maximize the opportunity by expanding and/or by diversifying and by creating competitive advantage and barriers to new entrants.
8. An investor will seek to enhance the collateral value of the existing venture by locking in long term tenures.
9. Competitive advantage may also be achieved through securing other prime water leases, channels to market (vertical integration) and acquisition of competitors.

A private participant will seek to mitigate risk by:

1. maintaining maximum flexibility over operations, site selection and species farmed
2. resisting governmental interference and changes to the “modus operandi”
3. maximizing the term and conditions of tenure
4. having the right to sell the investment at a capital profit with minimal conditions and costs
5. utilising the lowest cost production regimes
6. achieving the highest productivity and yields
7. minimizing delays and uncertainties

8. restricting the availability of any intellectual property, knowhow and show how to the maximum extent possible from potential competitors.

The Department of Fisheries (“DOF”)

The ADC and DOF are seeking private participant(s) for a two year proof of concept Sea Trial.

To the extent that those objectives are shared by the private sector participant(s) (i.e. risk mitigation/ sharing, collaborative funding, provision of contributed services and equipment etc) there is a basis for collaboration.

The DOF objectives for the Proof of Concept Sea Trial:

A Workshop held on 22nd January 2009 with DOF personnel, identified the following:

1. The Department’s objectives for OOA in WA include:
 - a. finding and securing an appropriate zone
 - b. developing an appropriate regulatory framework
 - c. in respect to the two year sea trail – generating environmental data

In discussing the reasons for conducting a Sea Trial the following benefits were identified:

- a. testing and evolving cage and other technologies and their suitability to Western Australian open ocean conditions.
- b. validating the biological and financial assumptions of the feasibility study

As per Michelle Hamlin’s email 30th January 2009, the Department has formalised its objectives as being:

1. Develop a process to determine an “Aquaculture Zone”.
 - a. Note: Determining a zone is intended to include the gathering of baseline environmental data for “strategic assessment” of the entire zone. Strategic assessments are currently undertaken by the Commonwealth.
 - b. Note: Commence discussions to develop methods to incorporate social and economic issues – allow for full ESD assessment. (This will link in with outputs from WAMSI Project 4.5).

2. Develop a process to secure an “Aquaculture Zone”.

Note: The determined process, levels of government involved and Departments consulted will depend on the final location of the OOA project in either State or Commonwealth waters.

3. For Commonwealth waters, to develop a licensing/leasing framework in conjunction with relevant Commonwealth Departments.
4. To ensure appropriate regulatory controls can be implemented by the Department. Note: This may occur in conjunction with relevant Commonwealth Departments.
5. To ensure the Department's credibility is maintained through the open, transparent and equitable management of the OOA Project.

GOVERNANCE ISSUES FRAMEWORKS AND RECOMMENDATIONS

Principles of Governance

There are areas of governance that should be observed across all models where taxpayer funds are committed to specific projects or enduring rights such as leases and licenses will be granted to private participants on some form of preferential basis that creates commercial value attached to those rights.

All processes should be fair and open with predetermined criteria for the selection of the successful applicant.

All selection processes should be subject to a probity audit.

All persons involved in the framing of the processes and selection should not be conflicted.

It is of paramount importance that the objectives for the OOA project are the drivers that determine the processes and criteria for decision making.

Foundation recommends that the OOA project only proceed if the objectives set for the project are aligned with those of the other participants and by attracting privateers with experience and financial strength. This comment is made in light of recent failures of startup aquaculture ventures undertaken by newly listed ASX companies. Initial Public Offerings to fund long gestation aquaculture projects with uncertain revenues and unproven markets are not considered appropriate models that offer the best or even reasonable chances of success. It is important that the POC Sea Trial is seen, if successful, as a credible outcome by prospective industry investors.

The selection of collaborative partners therefore needs to be discerning to give the project its best chance of success or be deferred until the criteria is met if applicants do not meet the agreed criteria for selection.

Foundation, from the limited work it was able to undertake, has been unable to see any issue involving National Competition Policy in the OOA project. Foundation was unable to locate the relevant Federal agency handling NCP. Foundation's discussions with a specialist lawyer in this area have suggested that the project is unlikely to involve NCP. Foundation has been advised that this aspect of OOA should be dealt with by the State Attorney General's Department.

Issues in relation to Governance and the Public Private Partnerships (PPP) collaboration:

No precedents were identified of PPPs of a size or relevance that exist in the fishing/aquaculture industries in Australia that could serve as a case study or precedent for the OOA Project.

The objectives as outlined by the ADC and DOF for the OOA Project seek to create a relationship with the private sector partner(s) to derive mutual benefits. Such a relationship will only succeed if

there is commonality in objectives and an effective means to identify and deal with risks, issues and disputes as they materialise before and/or during the Project.

PPPs have been used widely in the development of large scale infrastructure projects. The private sector typically build, own, operate and in some cases transfer ownership (at the end of a period) back to public ownership (BOO or BOOT respectively).

The stated objectives for PPPs are to deliver improved services, maximise social and economic services to the public and adopt best practice operating regimes. Each project has its own unique features and degrees of risk that require different levels of contract management and different strategies.

A PPP relationship requires the sponsoring public partner to implement effective contract management practices.

The risks and the degree of contract management required of the public partner in a PPP maybe entirely disproportionate to the size of the project. The OOA project is a small experimental proof of concept.

The partners as a rule of thumb need to share at least 80% of the objectives for the project.

This report has sought to identify each stakeholder's objectives in the proof of concept Sea Trial and in the Commercialisation of the OOA project and determine the degree of their complementarities.

The OOA project does not meet criteria for a PPP.

In essence the public objective is to establish OOA as a proof of concept, without a substantial cash input and with limited contributed service in the form of R&D monitoring, and without any responsibility for or commitment to the financial viability of the project.

Conversely the private partner would see itself as putting up the bulk of the funds for an "experiment" that has none of the requisite approvals in place for commercialisation, at a location not of its choosing and with all the outcomes being made publically available.

No private sector group confirmed any degree of committed interest to participate in the OOA proof of concept project at this time.

Feedback from the private sector indicates that some potential private partners do not see any or limited commercial benefits in participating in a Sea Trial and no commitment to funding the trial. Some view the technology as already in commercial use in other parts of the world and that yellowtail kingfish have already been grown in WA.

The Sea Trial may be seen as an unnecessary impediment in the eyes of some and should not preclude those participants from commencing OOA operations.

It is recommended that no participant in the Sea Trial be given a preferential position, in terms of site selection or approvals, as an inducement for their participation in the Sea Trial other than at Two Rocks in the designated zone.

The value of the Sea Trial, in the eyes of the private participant, will be based on their risk analysis and the costs and benefits they see as being derived from the Sea Trial. Those that do not wish to participate in the Trial but wish to commence commercial operations should be encouraged to do so as a consequence of their experience and specific knowledge of farming in open oceans.

Additionally utilising existing infrastructure (onshore facilities, boats and human resources) they may see the start up of commercial operations as a low cost entry if undertaken at a modest level within a low cost structure initially that is capable of being scaled once confidence is gained as to the viability of the project.

Conflicts of Interest

There are several areas of potential conflict in the proposed OOA project between the ADC's and DOF's objectives and in their roles.

1. DOF is both regulator and promoter of the OOA Project ("game keeper and poacher"). It is also the provider and manager of the ADC's budget and has or will be providing the Project with many of the research, management and other organisational resources in the lead up to and through the Sea Trial - notwithstanding the ADC's role.
2. In attempting to build a structure that is seen to provide independence from the DOF, there is a risk that the separation of responsibilities will result in longer communications lines and a less responsive regime that will be counterproductive in facilitating an OOA industry.
3. If the POC Sea Trial is undertaken with funding from the private sector. It is unclear whether the scope of the Sea Trial will be seen to be of value to the private participant(s) in respect to all of the work to be carried out. It is unclear from the scope and objectives of the Sea Trial whether scope will be compatible with the funding and the public or private agendas.
4. The ownership and use of information derived from the Sea Trial will need to be clearly determined at the outset with the private participant(s). There could well be a perception of "preference" in respect to the constraints on information derived from a "Sea Trial" in part funded by the State.
5. In satisfying the governance requirements for the participation of the ADC and DOF in a collaboration with the private participant(s) the desirable levels of bureaucracy and governance could prove to be too burdensome for a relatively small project requiring a high level of flexibility and operational autonomy, on a project budget that could be manifestly inadequate given the high levels of risk of disruption from factors outside the control of the participants i.e. bad weather, mortalities, cost overruns, infrastructure failures etc.
6. ***The Independence of the Regulator – "a step too far"?***

As is evident from the roles played by the other State Departments of Fisheries (as both regulator and promoter) there is an acceptance of the difficulty in splitting the two and that the expertise and

resources of various fisheries departments are essential to the establishment and development of a fledgling aquaculture industry.

It is therefore essential that appropriate governance regimes are put in place and adhered to and that the principles of probity (set out below) are at all times maintained.

It is inevitable that as ocean aquaculture grows it will come into increasing conflict with the wild fishing industry and there will be a point in time when its development and regulation will need to be independent.

Probity Audit and Advice

It is recommended that a probity plan be prepared and the processes to select a private sector participant(s) for the sea trial and commercialisation of OOA, be subject to a probity audit undertaken by an external probity auditor. Probity audits are routinely undertaken in NSW and Victoria as part of any tendering process. Probity audits serve two principal purposes to:

1. Ensure that those processes and persons involved in the evaluation and selection of private sector applicants/bidders are not conflicted or compromised in any way and the principles of probity set out below are adhered to. and
2. Provide the private sector with the assurance that the processes of evaluation and selection are fair to all participants.

The principles of probity are:

- Fairness and impartiality
- Use of a competitive process
- Transparency and consistency in the process
- Security and confidentiality
- Identification of resolution of conflicts of interest
- Compliance with legislative obligations and government policies

Tenure

The WA Department of Fisheries is responsible for regulation of WA fisheries within its State waters.

The OOA project is not considered a project that could be regulated presently within existing State or Federal legislature or under existing management agreements between the States and Commonwealth. The State of Western Australia cannot offer any tenure or rights to a site situated more than 3 nautical miles off the WA coast or other designated waters that fall outside the State's areas of jurisdiction.

Encouraging a private sector applicant to invest in a sea trial without the legal framework to be able to offer a site for commercial aquaculture would be to place the State at risk of a claim for compensation and the accusation of having misrepresented the position. By its nature such a project would be viewed as an experiment by the private sector and be unlikely to attract real interest.

Tenure in State waters in various forms (for example Victoria, a crown lease) have been offered on the basis of minimum 20 year terms with options to renew that would grant a holder a minimum tenure of more than 40 years. It is important to establishing collateral value in the tenure that is bankable and has the character of a property right. A Torres title system of registration of sea bed leases may be one such system that would allow lenders and purchasers to validate the title and its being in good standing.

Operators must also be licensed to conduct the activities of aquaculture within the water leases and is a separate right to the lease subject to periodic renewals and payment of fees and compliance with license conditions.

Licenses to operator and water leases should be capable of being held by separate entities. This is advisable as the operator may not be the sole provider of the capital and or funding for an OOA venture. Should that be the case any default or impropriety on the part of an operator should not place at risk of forfeiture the tenure over a water lease or site as such a risk will act as a negative in securing investment and borrowings from third party investors and lenders.

Terms and Conditions of Tenure

Terms of Tenure of other States and the NT typically include:

1. Leases are typically for a period of a minimum 20 years with an automatic right of renewal (minimum of 10 additional years). Applicants are also required to hold a fishing permit
2. Nominal annual fees
3. Issued as a sea lease or as a crown lease (Victoria only)
4. Allows sale or transfer subject to DOF approval (usually a “good character” test, no prior fisheries convictions). Capital profits retained by the transferor.
5. No automatic forfeiture in the event of financial default (this is an important condition in the private sector’s ability to secure private equity or bank finance) rectification post default able to be made by a security holder to maintain the lease in good standing.
6. There was little history of significant monies being paid up front for new leases. Victoria did raise \$600-700k through a recent tender process. An allocation of these monies was made to a rectification fund to alleviate the need for successful bidders to lodge “make good” bonds.
7. No limitation on applications from offshore (all be it through Australian subsidiaries)
8. A “use it or lose it” clause to prevent speculative holdings,
9. No sale permitted within 3 years of allocation

10. On shore infrastructure and shore base access also addressed within the granting of the lease
11. Environmental performance parameters that are required to maintain the lease in good standing need to be clearly set out.

“Use it or lose it”

1. The granting of a water lease or tenure should be conditional on the participant performing within a reasonable time frame and subject to his providing a business plan.
2. The lease should express the agreed time frame for establishment of the project and the expenditures and scope of the participant’s level of financial commitment which if not met could place the water rights at risk of forfeiture.
3. Notification of a default should be required and a reasonable period for rectification afforded before forfeiture could occur.

The State needs to have conditions requiring performance in order to discourage speculation.

Environmental Approvals

The two approval processes that are at the front of the private sector investors risk concerns are the environmental approvals and the terms and conditions pertaining to the granting of tenure rights and licenses.

This has been recognised by several other Australian States who have established specific ocean zones where approvals are in place for the specific forms of aquaculture designated as appropriate to the zones prior to calling for tenders or applications.

It is recommended that the State actively pursue an arrangement that will allow the State to grant water leases and licenses to operate and manage OOA in Commonwealth waters under a devolved power. A pro temp approval to carry out “research programs” in order to gain access to Commonwealth waters will not provide any certainty to an investor.

Success in attracting private sector investment in OOA in Western Australia will depend very much on the certainty and timeliness with which an investor believes he will be able to receive all the approvals required to undertake a project.

Any protracted delay or major impediment in the granting of approvals will almost certainly be fatal to getting a project up.

Approval processes that are indeterminate, conditional on outcomes or take longer than six months are not best practice in today’s competitive climate. Clear performance parameters must be set as to the operating conditions of licenses to ensure certainty. Government also needs to recognise that much of the successful development of open ocean industries in Australia has been pioneered by small privateers who did not have significant financial resources or expertise to deal with sophisticated approval processes, legal frame works and a multiplicity of government departments.

Demarcation between ADC and Fisheries

It is recommended that consideration be given to determine whether Aquaculture should be regulated under a separate Act to that of the Fisheries Act given the very different nature of the two industries.

If the responsibilities of the ADC are broadened in accordance with the recommendations contained in the Executive Summary then it is recommended that:

1. the regulatory role of the Department of Fisheries be separated from the promotional role of the ADC and the ADC be given statutory powers, its own operating budget and adequate staffing, reporting directly and independently to the Minister for Fisheries will be beneficial in the longer term.
2. The Council of the ADC are appointed by the Minister and should have the appropriate skills for the promotional and new investment facilitation roles of the Council. The Department of Fisheries CEO should not be represented on the Board (he has a perceived conflict of interest) and should be replaced by an ACWA nominee or a WAFIC nominee.

Department of Fisheries and the ADC have not defined their separate roles well enough to ensure responsibilities in respect to approval processes, decision making and contract management are clearly understood if the OOA project is to proceed.

The ADC is an advisory committee with limited resources. The administration of the ADC in an expanded role will require its own small but full time executive with experience in business development, contract management and investment initiation and management.

Currently DOF has allocated a budget for the OOA project and administers and makes payments on behalf of the ADC.

Fisheries have stated that it is the role of the ADC to determine and select the successful applicants for the OOA project.

As and when the OOA proceeds it will be a time consuming and involved process requiring the resources of the DOF and/or external consultants.

By way of example vetting of applicants in a selection process will need to be undertaken including:

1. Undertaking due diligence processes and establishing the bona fides of applicants (more rigorous if the recipient is to be a recipient of taxpayer funding).
2. Evaluation of the viability of applicant's business plans.
3. Evaluation of their financial capability, experience and expertise.
4. Contract negotiation, management and administration.

Selection and Approvals Processes for the Proof of Concept Sea Trial and Application for OOA Water Leases

It is recommended that Expressions of Interest for participation in the Sea Trial and for applications for sea leases be called, from interested parties to apply for the right to undertake OOA off the coast of Western Australia.

1. The OOA concept should be as widely circulated as possible by way of an information memorandum and via the internet with a purpose specific web site and through various fishing industry organizations and media, in Australia and overseas.
2. Invite Expressions of Interest, including details of applicants experience, financial strength and development plans and proposed timetables for OOA in WA.
3. Registration of applicants who meet pre determined eligibility requirements.
4. Invite detailed submissions from the 2 or 3 best ranked applicants who wish to participate in the Sea Trial.
5. Negotiation of terms for participation in the Sea Trial and commitment to commercialization if the trial is successful, including the terms of the State's funding and collaboration.
6. Final selection and award
7. Guarantee to meet tender costs if award is not made

To ensure that potential interested parties are given every reason to bid, it is suggest that the tender conditions provide that the preferred bidders be able to claim back a reasonable pre set cost for the preparation of their tenders if no award is made to them provided they have bid and otherwise acted in good faith particularly if they are used as "stalking horses".

In the current economic environment, Foundation has been unable to identify a private investor to seed the proposed proof of concept OOA finfish project at Two Rocks. The reasons are varied when discussing WA based OOA.

Primarily they are:

1. No ability to grant long term tenure in Commonwealth waters if the project proves up commercially
2. Uncertainty, cost and lack of timeliness of regulatory approvals
3. Never been done before in Australia.
4. High risk vs Uncertain Reward. Is there a prize at the end?
5. WA not seen as an investor friendly environment for aquaculture investment
6. WA not competitive with other Australian states and NT.

That said any process of selection and approval must be fair and open and be subject to acceptable standards of probity.

The private investment will be attracted by:

1. Certainty as to outcome – tenure, environmental approvals etc
2. Timeliness in approvals or preferably pre-approvals
3. Minimised costs and risk
4. Flexibility in site selection and farming regimes,
5. Availability of existing on shore infrastructure
6. Availability of seed and other funding through the State Commonwealth and industry agencies

Potential private participants should be those with genuine intent having the experience and financial backing to undertake such projects.

Participation in the proof of concept Sea Trial should not be a requirement for a potential participant if they see no benefit in participating in a proof of concept.

There has been some feed back to suggest that there is limited private interest in operating a Sea Trial of Yellow-tailed Kingfish off the west coast of Western Australia as:

- a. the cage technology is already known and proven elsewhere.
- b. yellow tailed kingfish are already grown in New South Wales and South Australia (at a commercial loss).
- c. and in shore sea cage farming has been in operation in WA.

What is the return to the Public and how best will the public interest be served

There is no precedent in Australia of the public interest having been served by deriving a substantial financial benefit from the sale of rights to aquaculture farming. To the extent that bidding processes have been used successfully to sell rights to farm, the returns have in most cases only covered the costs of the sale processes.

In all cases the public interest was seen to be best served by attracting strong applicants who would be the catalysts in establishing a new industry, creating employment, tourism and the various other multipliers that would come from the new industry.

Annual licensing and water lease fees have been set at nominal levels to recover the administration costs only.

OTHER CONSIDERATIONS TO FACILITATE OOA IN WESTERN AUSTRALIA

For the Aquaculture Development Council to achieve its objective of developing an industry with an annual turnover of \$250-500 million within a 20 to 30 year time horizon it will require a multiplicity of privateers establishing fledgling industries along the WA coast. This development should not be constrained by an approach that is incremental or too narrow in its focus by:

1. over controlling the location of farms
2. being over prescriptive in pre determining the type of farming technologies or
3. the sentinel fish species to be farmed.

It is unlikely that one large established industry player (Australian or international) will seed a new ocean aquaculture venture from its inception.

The Tasmanian salmon industry provides a precedent, being an ocean aquaculture industry of the size envisaged, for WA.

The Tasmanian industry was established by a multitude of small owner operators who have as the industry matured been aggregated into three (soon to be two) dominant operators who have developed the processing and distribution infrastructure and markets necessary to achieve the required economies of scale.

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Proof of Concept Sea Trial

Part funding from the State of a proof of concept sea trial is in the public interest if it proves up the viability of an OOA industry and in doing so facilitates the establishment of OOA in WA. It is also in the public interest if the objective of collecting environmental data from a sea trial will expedite environmental approvals and remove “conditionality” from those approval processes to allow the industry to operate within quantifiable parameters ensuring environmentally sustainable and financially viable projects.

There appears to be no Intellectual Property developed by any State Fisheries that has realised any significant financial value from its sale or licensing. The costs of protecting defensible IP are unlikely to be justified by the nominal financial benefits that might be derived from its commercialisation.

Precedents for the OOA Project

In reviewing the ocean aquaculture structures and management practices operating in NSW, Vic, Tas and SA the stand out model that has delivered the genesis of a diversified ocean aquaculture industry across a range of farmed fin and shell fish species is South Australia's.

Governance issues relating to the application, approval, inspections, equipment, sea bed leases, species and navigation issues are all covered by years of experience in the South Australian Act including the licensing of the on shore facilities which should act as a template for a Western Australian Aquaculture Act

The current proposal to trial Yellow Tail Kingfish in cages in the open ocean in Commonwealth waters off Two Rocks cannot be achieved in the short term without the Commonwealth Government granting some form of tenure over and rights to manage the proposed sea area for the trial. A more encompassing agreement with the Commonwealth to allow OOA in Commonwealth waters generally will require the States to press the Commonwealth on the issue at Ministerial level. DAFF have advised that this proposal would have to be argued on the basis of “national interest” and be supported by several States. It is not a priority for the Federal minister and whilst DAFF is supportive they see this as having a 3 to 5 year timeframe. A joint State Ministerial approach to the Commonwealth to cede Powers to the States to grant leases and manage aquaculture in Commonwealth waters will need to argue a “national interest”. Open Ocean Aquaculture in Western Australia has a future in State waters providing security of tenure is guaranteed and the rules of operating are set out clearly and fixed at the Commencement of any lease cycle.

Fisheries Western Australia, as a priority, needs to offer up all prospective locations along the WA coast suitable for ocean aquaculture within close proximity to existing ports and fishing harbours within State waters.

This will encourage participation by the existing fishing industry which is coming under increasing pressure from dwindling wild stocks.

To dramatically improve the approval times DOF should have legislative approval to enter into time line contracts with all other Departments involved in licensing and sea bed approvals.

Local Government involvement needs to be ameliorated. Processes need to be established to deal expeditiously with local government concerns and approvals affecting aquaculture zoning for in shore waters.

The Environmental Protection Authority Act needs to be amended to require the EPA to approve sea bed leases or designated aquaculture zones ahead of actual applications.

An 18 month timeframe for the granting of all approvals (based on viable business plans from reputable and experienced operators) should be a maximum with best practice targeting 6 months within approved zones, including environmental approvals, with no conditionality or rights of later appeal allowed.

Tasmanian Aquaculture has suffered severe problems over the allocation of sea bed leases with the Minister having appointed an advisory board dominated by environmentalists and amateur fishermen thus restricting the expansion of what is already a \$300+ million pa profitable industry.

Results from a Proof of Concept Sea trial

The DOF and ADC will utilise the proposed Sea Trial to research and attain data on the following aspects of OOA with the intent of making that information available to other prospective investors and with the purpose of:

- Generating environmental data
- Development of a regulatory framework
- Site selection
- Trialling and comparison of technologies
- Yield
- Potential use of sentinel fish
- Validate biological assumptions made in the feasibility study
- Test engineering of systems in WA coastal environment

The value of the POC Sea Trial to Commercial Partners is in respect to gaining:

- Certainty of tenure
- Approvals
- Yield Data, Food Conversion Ratios, Stocking Densities
- Engineering
- Sentinel fish
- Site information and proving up

- Technologies

To the extent that a private sector investor funds part or all of this research it is unlikely they will agree to it being made available to competitors and potential other new entrants.

It is important that the Department finance and conduct its own research where it wishes that research data and findings be placed in the public domain. The DOF should also clearly state up front that in calling for Expressions of Interest for participation in the Sea Trial; it is a condition of any collaboration that the results and data acquired from the Sea Trial will be placed in the public domain.

If this is not to be the case it is difficult to see how the State's funding of a sea trail is in the public interest and not providing benefits selectively to private participants.

There may be a case to consider for agreeing to a period of confidentiality if a private participant argues that he has directly or indirectly contributed to the cost of collecting the data and also has a proprietary right over that information. Any period of confidentiality should not exceed 12 months from the end of the Sea Trail.

Information IP Know How and Show How

It is considered that the cost and difficulties of protecting any IP (assuming there were to be some) that is defensible, would not be justified.

Nonetheless the information derived from a sea trial is considered to be of value to the private participant and that ownership and confidentiality of that information would be sensitive to the participant primarily as a barrier to entry for a competitor that should not be given away freely.

The Commercial value of the information is not considered high as it is unlikely to be "defensible" i.e. patentable or if so not cost effective to do so. Realistically the monetary value to a new entrant of the knowhow and show how derived from the sea trail is no more than the cost of poaching a key employee or engaging consultants with the requisite experience.

From the ADC and DOF's point of view the information is likely to be of value in validating key assumptions as to the viability of the project as discussed in feasibility study. This information will be derived from a jointly funded sea trial. There is the potential for conflict between the participants as to the use to which that information could be made if not clearly agreed up front.

DOF and the ADC could reasonably expect that any information that validates the viability of OOA or mitigates risk would assist in attracting other private sector investors, facilitate the development of an OOA industry and assist in achieving their objectives by being made public.

It is expected that a solution could be either for:

1. DOF, via the ADC, specifically funding the sea trial activities for which it wants to disseminate data in the public domain, with the right to do so. In practice this may be very difficult to achieve given the nature of a sea trial is not readily divisible into discrete parts. or
2. To agree a lock up period of 12 to 24 months in which all sea trail information remains confidential that could be considered to confer a benefit to a new entrant. This should in any event exclude environmental or other data required for regulatory monitoring.

On the other hand it would be unreasonable for a private operator to expect information to remain confidential for all time where taxpayers have part funded the sea trail. Should this be the case the private sector participant should meet the entire cost of the sea trail or at the very least reimburse DOF for its funding if it wishes to retain confidentiality under some form of option arrangement.

Schedule A

NEW SOUTH WALES

Final approval on all aquaculture licences and leases rests with the Minister for Fisheries.

Offer sea bed leases 20 years with option of renewal further 20 years.

Include lease and licence for on shore facilities for aquaculture pursuits?

Have a one stop shop approval system for aquaculture.

NSW are prepared to enter in to a time line approval contract with all aquaculture proponents.

New South Wales Fisheries are an incorporated body and have the ability to be a proponent in an aquaculture project up to trial stage.

The Fisheries Minister in NSW has the ability to declare any aquaculture project State significant under part 3a of the NSW Fisheries Act thus overriding all State Departments and Local Government.

Competitively tender to private individuals and companies for research work (Akoya pearls).

State will give a guarantee that it will not take more than two years from trial set up to full production if trial is successful.

The State has the ability to give any new project an emerging Industry status thus committing additional State funds and resources to the project.

NSW Fisheries have relied in the past on Taxpayer and FRDC funds for all innovation work, have had limited success in selling IP to the Tasmanian oyster industry.

NSW Fisheries do supply fingerlings in competition with private hatcheries; have now closed their hatchery supplying oyster spat.

NSW Fisheries, as a one off, did tender out their ocean leases in Botany Bay together with their trial sea cages.

NSW Mantra for Aquaculture is: "A VIABLE SUSTAINABLE AQUACULTURE INDUSTRY IN NEW SOUTH WALES."

TASMANIA

Fisheries Minister has final approval over all sea bed leases and licences.

Tasmania has a separate "Marine Farm Planning Act".

Tasmanian Fisheries Dept works very closely with an Industry appointed Aquaculture Council.

Tasmanian Coastal waters broken up into 14 regions all suitable sites within those regions have been fully approved.

Tasmania operates a one Stop Shop approval system for all aquaculture leases and licences.

All activities of the Tasmanian Dept of Fisheries are at Taxpayers' expense.

Tasmania does not operate a tender system for sea bed leases and the lease price is nominal.

Tasmanian aquaculture lease tenure is 30 years with a fifteen year option.

Lease and licence on shore facilities for aquaculture.

All aquaculture leases in Tasmania are transferable; aquaculture licence transfers require individual Fisheries approval.

Conflicts of Interest difficulties are real between the Aquaculture Industry and the recreational fishermen.

There are some conflict of Interest issues with having the promoter and the regulator all in one State entity, have not seen the necessity to split the Department as yet.

Tasmanian Fisheries does have a joint venture with private industry SOLTAS which supplies smolt to the growers. The State will eventually withdraw from this arrangement as the Salmon Industry is now developing its own hatcheries.

Tasmania does recoup some of its costs over already surveyed and approved aquaculture areas approximately \$30,000 per lease.

Tasmania is not particularly specific in what can be grown at a particular lease to encourage a range of species to be grown.

If you need to amend a licence for additional area and species in Tasmania it can take up to 12 months.

Tasmanian Fisheries did originally advertise approved areas for lease, receiving a poor response, now they rely on interested parties approaching the Dept.

The Tasmanian Minister for Fisheries did appoint a Ministerial Committee to report directly to the Minister on the allocation of ocean leases, this committee is dominated by environmentalists and recreational fishing representation and has been disastrous for the \$360 million Salmon Industry trying to expand.

Tasmania does not offer any cash incentives to Aquaculture development.

Tasmania does have very strict food regulation laws which they apply to aquaculture to maintain standards.

Tasmania is keen to assist Western Australia in an approach to the Commonwealth for ocean aquaculture in Commonwealth waters.

VICTORIA

Fisheries Minister has final approval on all leases and licences.

Victoria operates a one stop shop for all aquaculture leases and licences.

Victoria has surveyed its entire coastline and fully approved ten aquaculture sites over 2000 hectares.

Victorian Fisheries have a sophisticated web site on all of the areas available for aquaculture including the application for the site and the licence to farm.

Victorian Fisheries do licence and lease the onshore facilities for aquaculture pursuits.

Victorian Fisheries have tried an auction system for their sea bed leases. 197 hectares were auctioned (all mussel farms) averaged \$3000.00 per hectare

Used U.S. based consultant total cost of auction \$300,000. Now rely on approaches from interested parties.

Victoria uses the land act for their sea bed leases terms are 21 years with a further option of 21 years.

All Victorian Fisheries aquaculture activities are at Tax Payer cost.

Victoria has no restrictions on foreign ownership of Aquaculture leases.

Victoria includes a rehabilitation fund cost in all of their sea bed leases.

Successful applicants for aquaculture leases and licences in Victoria have three years to develop their lease.

The sea bed leases, land based leases and licences are fully transferrable after three years providing all conditions have been met.

Victorian Fisheries use a probity auditor at all stages of their aquaculture lease/ licence approval system.

All of the successful aquaculture sites in Victoria are within 12 kilometres of a substantial port and facilities.

All successful ocean aquaculture ventures in Victoria have come from existing fishing industry players.

SOUTH AUSTRALIA

Fisheries Minister has final approval on all leases and licences.

South Australia has a separate Aquaculture Act.

Sea Bed leases are administered under the South Australian Lands Act

Aquaculture leases are for a minimum of 20 years with the right of renewal.

South Australia have surveyed their entire coastline and fully surveyed and approved their aquaculture lease areas including EPA approval with no late appeals or comebacks allowed. Currently SA has between 2000/3000 hectares fully approved ready to go in the Spencer Gulf.

South Australia operates a one stop shop approval system.

South Australian Fisheries rely on interested parties approaching the Department for leases rather than actively marketing the leases.

There is No Development approval required with South Australian aquaculture leases and licences thus overcoming the NIMBI culture of some Local Governments.

South Australia is not prescriptive on species required to be grown in ocean caged aquaculture or equipment etc to be used providing it meets the local standard.

Fisheries Minister has a separate board reporting to him directly on sea bed lease tenure allocation, Industry based (it works well).

10% of any aquaculture lease is allocated to cages with the rest buffer (large leases)

South Australian aquaculture leases do vary in size but are normally around 100 hectares, strong on 30 hectare sites being too small.

The sea bed lease holder in South Australia is required to pay for all navigation costs.

South Australia has no restriction on foreign ownership of aquaculture leases

The application process only relies on the applicant being a fit and proper person.

On application the proponent is advised it will take 6 weeks to check his/her credentials and financial backing etc.

From application to Commercial operation in an already surveyed and approved site has been averaging between 12-15 months no longer.

If it is a green fields site not already fully approved it is taking around 18 months.

South Australia has not seen the need for a probity auditor (South Australia is and has been locked into years of litigation over the allocation of sea bed leases and licences).

South Australia allows the sea bed lease holders to relocate cages frequently within their lease boundaries without continuing reference to Fisheries (assisted by the allocation of large leases from start up.)

South Australia licence and lease the onshore facilities used for aquaculture.

In South Australia all aquaculture lease holders are required to lodge a bank Guarantee of \$10,000 for rehabilitation of the lease if it is no longer required or surrendered.

All aquaculture lease holders must hold public liability Insurance to the satisfaction of the South Australian Government.

The South Australian Government pays no cash incentives for the development of aquaculture in that State.

The South Australian Aquaculture Division of Fisheries has now been instructed to work towards full cost recovery of their operations.

Until now the Taxpayer has 100% funded all of the aquaculture development in South Australia.

South Australia has now capped the areas available for oyster farming to protect the industry (now limited entry fishery).

The South Australian Government do have a dedicated group (SARDI) who at taxpayer expense have a whole team of specialists studying all of the marine species that may be suitable for commercial aquaculture plus a risk assessment that goes with that species and the ocean farming techniques and equipment required for a particular species.

LEGISLATION

New South Wales and Victoria manage their aquaculture operations under their existing Fisheries Act, Tasmania has a separate act "The Marine Farming Act 1998" Victoria cover their activities in aquaculture with a combination of the Fisheries Act and the Land titles Act. South Australia have separate legislation for their aquaculture industry but use their Land Titles Act for sea bed leases within State boundaries.