

**Workshop on  
Sustainable Development of Marine Fish  
Farming in WA**

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## *Background*

The purpose of this paper is twofold. First to provide an overview of the role of government and more particularly the Department of Fisheries and second to outline government expectations for aquaculture development agencies in the implementation of sustainable development initiatives and the effect this could have on the management of aquaculture within WA.

## *Current Approaches in WA*

The Department of Fisheries already has in place a comprehensive assessment procedure for each aquaculture development proposal in coastal and marine waters through a process outlined in a Ministerial Policy Guideline (“MPG 8”). This includes an analysis by departmental staff, a public comment phase and, where necessary, it may trigger an environmental assessment under the State’s Environmental Protection Act.

The Department also has a translocation policy for aquaculture proposals involving movement or introduction of non-indigenous species or stocks.

There is little doubt that the issues of most importance to the community for marine aquaculture proposals relate to the potential for increased nutrients from feeds entering the water column, risk of disease, changes to the behaviour of other marine species, particularly aquatic mammals, and the visual impacts related to the structures required to undertake the aquaculture operations. There are also issues concerning navigation,

competing issues of the marine environment including tourism, conservation, mining and petroleum which need to be taken into account.

MPG 8 itself provides for co-ordination of aquaculture licensing application submissions across Government. It ensures consistency in the applications of competency tests and therefore priority for applications made over sites. The consideration process itself also facilitates other decision making bodies such as those made by the Environmental Protection Authority and those covering access to land by the Department of Land Administration, including the Native Title requirements, to be met separately.

To date, in excess of 100 applications have been considered and approved under the guidelines since they were introduced in 1997 and subsequently amended in December 1998.

### **Application of ESD Principles to Aquaculture**

During the past ten years, concepts such as sustainability, ESD and triple bottom line reporting have come to the forefront of government thinking. These concepts are being pursued at all levels of government.

The term “Ecologically Sustainable Development” (ESD) was adopted in Australia to emphasise the importance of the environment to long term survival and ensure that there was a balanced approach in dealing with environmental, social and economic issues.

At the Commonwealth level, one of the major shifts in policy has been the introduction of the *Environment Protection and Biodiversity*

*Conservation Act 1999* (EPBC Act). Part of this removed the exemption for fish species to undergo environmental assessments before they are allowed to be exported. This has had a major but positive impact on commercial fisheries which must now have their activities assessed against the criteria developed by Environment Australia. The action itself has also propelled the Department of Fisheries to make its fisheries management practices even more transparent and accountable.

Within WA, there are a number of initiatives to implement the concepts of ESD at the State level. An Office of Sustainability has been established to coordinate the development of a state sustainability strategy and stimulate the pursuit of sustainability across government, industry and the community.

It has already been flagged that there will be a requirement for all government agencies to complete triple bottom line reporting within the next few years.

The general community now has a much higher expectation about government's response to environmental issues and the community's participation in decision-making processes. So together with the increased requirements of government, natural resource management agencies are continuing to evolve their methods of operation and assessment of their performance towards ESD objectives. In the case of the Department of Fisheries, this has included adoption of an ESD policy framework for assessment and reporting for fisheries.

### ***National Fisheries and Aquaculture Initiatives***

How have these changes been achieved?

Back in 1999, the then Standing Committee for Fisheries and Aquaculture, which comprised the CEOs' of all Australian fisheries agencies, recognised the need to develop a nationally agreed system for ESD reporting for Australian fisheries and aquaculture. The process began developing a national framework for reporting on ESD for wild capture fisheries back in 2000.

The framework not only covers the target species, but also any issues related to by-catch and the broader ecosystem. It also covers the social and economic factors affecting a fishery. The final category that must be examined covers the governance arrangements, including the allocation of access amongst competing sectors.

The initial assessment process has largely been completed, with the methods having been published and distributed. These methods are a major element within the recently released WA Department of Fisheries policy for the implementation of ESD. In particular, they are being used to generate the information for the applications to EA to meet the EPBC requirements.

The other elements covering reporting, resource allocation principles and processes and marine planning frameworks require further development.

### ***What about Aquaculture ??***

There is no doubt that aquaculture has not been addressed as comprehensively as the wild capture sectors through this process.

So how does aquaculture vary from wild capture sector?

- Regulations are often developed and imposed at operator level not the sector level
- Many sectors are land based
- Most of the issues arise from what is put into the environment, not what is taken out
- The issues often cut across many government agencies

The issues surrounding ESD and all aquaculture sectors were canvassed at a national conference held in Melbourne in July. Whilst it was agreed that a national framework similar to the wild capture system would be valuable, it was recognised that further effort was required to make the framework suitable for the issues facing aquaculture.

Consequently, the Australian Fisheries Management Forum, which has replaced the Standing Committee, recently reaffirmed its commitment to developing a suitable ESD framework for the aquaculture sector.

The draft ESD framework for aquaculture recognises that issues for aquaculture need to be addressed at four levels:

1. There are issues that relate to the whole of industry, such as broodstock collection and the minimisation of disease events.
2. There are issues that relate to the catchment or regional level which may include the total amounts of solid wastes allowed, or the total area that can be alienated from other uses.

3. There are issues concerning wider marine resource use, competing resource access in terms of tourism, conservation, transport, mining and petroleum and commercial, recreational and aboriginal fishing interests. These access or competing resource sharing requirements also interact with coastal and land planning needs. Planning by necessity will need to balance the economic, social, environmental and financial aspects of development or sustainable natural resource use.
4. The final level is at the farm or enterprise level, the specifics of which should be related to achieving the objectives at the whole industry, the catchment/regional level or both.

The current assessment framework in WA, whilst comprehensive, can be improved by explicitly recognising the need for objectives and performance limits to be generated at the regional or catchment level. This is needed to ensure that cumulative impacts are appropriately addressed and there is more certainty for both the industry sectors and the local communities as to the potential size of these sectors within any one region.

In developing regional plans for aquaculture, it will be necessary to incorporate the requirement of other sectors into this process, particularly for the allocation of lease areas. This would include the needs of both the commercial fishing and recreational fishing sectors. It would, however, also need to address the requirements of non-fishing activities such as mining and tourism. Consequently this process, to work effectively, requires full regional marine planning to be completed. This would

involve a whole of government commitment and input from other government agencies and local government.

### ***Future Initiatives***

Processes are already in place to refine the ESD framework for aquaculture by the middle of next year.

It is planned that ESD reports for each aquaculture sector will be completed by the end of 2005.

The lack of a suitable marine planning process has been identified and articulated to Government and the Office of Sustainability as a major gap in our ability to realize their sustainable development objectives. (refer diagram 1)

Discussions are already occurring with the State's Environmental Protection Authority as to how it can be involved in auditing the environmental performance of the Department, including aquaculture.

### **Governments Support for Aquaculture**

Having dealt with ESD, processes around ensuring a sustainable industry and an appropriate environment for development, why do Australian governments have such a keen interest in aquaculture?

In brief terms, the objectives and outcomes are clear:

- Regional communities and regional employment are continuing to decline.
- Many smaller rural towns are becoming unviable.
- Commodity prices for traditional agricultural products such as wheat, wool and meat are continuing to decline long term. This in turn is forcing agriculture to become more efficient, further reducing employment.
- Salinity issues in Western Australia have, and will become, so significant that every opportunity needs to be taken to develop new industries on land that no longer can produce traditional crops and to facilitate investment into salinity mitigation.
- The acknowledged gap between world seafood demand and supply from wild stock fisheries is continuing to grow as the world fisheries have reached their sustainable catch limit.
- Australian commercial fisheries themselves have virtually reached limits of production.
- Many coastal communities, particularly those in Northern Australia, are looking to diversify their economic activities into new industries. This is particularly so for coastal Aboriginal communities.

The aquaculture industry for Australia has the potential to address in part, or totally, these emerging issues:

- It's about significant new employment in rural communities.
- The creation of new industry with significant regional economic and social multipliers with the potential to reverse some of the harsh economic and social realities of future rural Australia, including isolated coastal communities.
- It's about the creation of wealth, based often on export industries, with a range of value adding and investment opportunities using new technology, resources and products.
- Today, at over \$700m in production, or about one third of Australia's value of wild stock fisheries, it is the fastest growth area within the primary industry sector. Its current annual growth is in excess of 9% per annum.

Governments have recognised these opportunities through both State and Commonwealth initiatives across a significant array of activities.

At the national level this has been recognised through the National Aquaculture Action Agenda and the Prime Minister's Science, Engineering and Innovation Council.

Visions such as establishing a \$2billion Australian aquaculture industry within ten years are exciting in prospect.

Pearls, tuna, Atlantic salmon and oysters are the basis of an already significant aquaculture industry. Abalone, prawns, micro algae, mussels,

barramundi and kingfish are potentially exciting opportunities with significant scope for growth, and sale into international markets. There is also an array of other species opportunities.

A recent Commonwealth led aquaculture “Round table” conference led by Senator Ian MacDonald, the Federal Minister for Forestry and Conservation in August 2002 focussed on the following key outcomes:-

- The industry confirmed its support for the recommendations and initiatives included in the PMSEIC and Aquaculture Industry Action Agenda reports, including a greater focus on the following priority issues:
  - Need for consistent, timely, transparent and well coordinated Regulation and planning between governments. Better engagement by government with industry - one stop shop
  - Commitment to ecologically sustainable development and accreditation
  - Making a National Aquaculture Policy Statement.
  - Collaborative research and development. Need for a national framework that meets industry needs
  - Peak industry body
  - Developing a marketing strategy for aquaculture products in Australia and globally – accreditation
  - Facilitating access to capital, managing investment risks, creating a national investment fund
  - Increase indigenous participation in aquaculture
  - Promote education, training and workplace opportunities
  - Improve fish health and quarantine management

- Ensuring aquaculture and fisheries have fair access to existing and future programs
- The outcomes of the Prime Minister's Science, Engineering and Innovative Council and the National Aquaculture Action Agenda will be the subject of a Federal Cabinet minute later this year. The outcome of this consideration will be a clear articulation of the Commonwealth's position and future commitment to the implementation of the recommendations of the reports.
- The State Government agencies are working closely with the Commonwealth to ensure that the maximum benefit is achieved for the development of aquaculture in the states.

At a Western Australian State level, we have already seen significant investments by Government in aquaculture totalling some \$20-25m in the last five years. A significant part of the expenditure has been spent on infrastructure (three aquaculture parks, a multi species hatchery, policy development, research and development, training and support for peak body representation). The present Minister has also put in place an independent review of aquaculture to ensure the State is using its prospective funding in the most effective way. This review is likely to report in March 2003.

Western Australia already has very strong guidelines covering environmental management through the EPA approval process and controls around species translocation.

Currently there is an excess of \$100m of investment opportunity in licensed aquaculture ventures on the table. These are often described as medium to high risk investments.

The benefits to the State arising from aquaculture are considerable, noting however that there are often significant time lags between initial investment and production.

The key to the future has to be sustainable development.

This must be built around clarity of environment principles and good management systems.

The adoption of an ESD approach by Government in its management of aquaculture is a fundamental key to success. The Department of Fisheries is committed, through action, to this outcome. It accepts much more needs to be done and to be effective all key stakeholders need to work more collaboratively.

To fail could result in significant loss of opportunity for employment, especially in rural communities, including isolated Aboriginal settlements. To succeed would correct many of the negative trends already occurring within rural Western Australia. The technology used could also become an important tool for wealth creation on rural properties in contributing to mitigating the failures in agriculture from arising salinity issues.

The key is finding an acceptable balance between the requirements for long term environment management and economic development,

enabling everyone in the community to meet the needs of our children and their children. Today's workshop is a commitment towards achieving that outcome. A sustainable future.