

Marine Fisheries Advisory Committee
Off Shore Aquaculture Legislation Breakout Group

Summary of discussion by MAFAC June 8-9, 2005 of a Bill submitted to Congress:

‘To provide the necessary authority to the Secretary of Commerce for the establishment and implementation of a regulatory system for offshore aquaculture in the United States Exclusive Economic Zone, and for other purposes’.¹

Discussion format

Michael Rubino and Susan Bunsick (NOAA) first provided explanation and analysis of the Bill to the full MAFAC Committee. It proposes framework legislation that will then allow NOAA to develop specific regulations appropriate to different conditions and types of culture, and to changes in technology that may occur in years to come.

A subgroup of MAFAC then met to develop comments on the Bill and advice to Dr Hogarth on its implications and implementation. A list of members of the subgroup, guests, and staff is attached – Appendix 1. A report on the subgroup’s discussion was then presented to the full MAFAC committee, followed by further discussion. Susan Bunsick took notes attached (thanks) – also Appendix 1.

Recommendations

1. Use MAFAC as a resource for ideas and comment in working with Congress. Also establish a mechanism (web site suggested) to inform the Committee of progress and to engage the Committee on related policy issues, including but not limited to:
 - a) Approaches to the siting of aquaculture facilities
 - b) Candidate species for offshore aquaculture
 - c) The role of regional fishery management councils (FMCs)
 - d) Development of the details of the permit process for offshore aquaculture
2. Develop a 10-year plan (Aquaculture Development Initiative) and present it to the next MAFAC meeting.² The initiative should include:
 - a) National goal(s)
 - b) Strategies for achieving national goals – e.g. regional demonstration projects
 - c) Program objectives and milestones
 - d) Resource requirements (including budget/staffing)

¹ Relevant prior MAFAC discussion of Aquaculture includes:

- Letter to Dr James Baker, April 2, 1999 - Regarding Draft Aquaculture Legislation, March 24, 1999.
- Report of the Aquaculture Subcommittee, 11 December 2003, New York City, New York

² Note that there is already a 2025 Aquaculture Goal (DOC 1999). A conceptual program to reach this goal is presented in Nash, C. E. 2004. *Achieving policy objectives to increase the value of the seafood industry in the United States: the technical feasibility and associated constraints*. Food Policy 29 (2004) p 621- 641. (Provided to MAFAC members in Legislation package, also available at www.sciencedirect.com)

Points emphasized in discussion

1. Send the Bill to the FMCs for formal comment. They are and should be a key resource for guidance, outreach, identification of regional issues and priorities, and for implementation of the Bill when it is passed.
 2. However, the FMCs do not have a budget for such work and this limitation must be addressed.
 3. There was strong support for the idea of demonstration farms, a program for which should be developed in parallel with the legislative / regulatory process. There was concern otherwise that there could be years of talk but no action.
 4. Consider methods of zoning for offshore aquaculture. Approaches discussed included:
 - a) By exclusion – i.e. develop maps to define where aquaculture cannot go
 - b) A Minerals Management Service approach – i.e. NOAA take the lead in identifying specific areas for aquaculture development
 - c) Ask FMCs to identify sites, initially for demonstration farms
 - d) Look into EFPs as a way of accelerating permit approval for demo farms
- (Chairman's note: Aquaculture can accomplish quite a lot in only a small area. A few suitable square miles in each FMC region would be sufficient to launch a substantial demonstration program)*
5. A 10-year permit is not long enough to justify investment. If this cannot be increased, there must at least be unequivocal assurance of renewal subject to compliance with other permit requirements. Renewal should not be subject to anything other than compliance with these requirements.
 6. The new regulatory framework for offshore aquaculture development must be accompanied by adequate investment in supporting 'infrastructure' and the necessary research to make this effective. R&D on the hatchery production of juveniles and feeds is especially important. This work needs core funding to underpin grant-funded projects. It may also provide scope for collaboration with USDA.
 7. Criticism of the Bill has pointed to the lack of specific standards included in it. MAFAC understood that this is a 'framework bill' but this distinction needs to be more clearly explained in future public presentations.
 8. The Bill could become unworkable through amendments. There is a need for checkpoints as it goes through the legislative process. MAFAC can be used for this.

9. Critics have challenged the Bill for not having been preceded by a Legislative Environmental Impact Statement (LEIS). NOAA's legal position on this should be verified.

APPENDIX 1

MAFAC – AQUACULTURE BREAKOUT GROUP – JUNE 8, 2005

List of Attendees

Don Kent/John Forster (co-chairs)

Tom Billy

Tony DiLernia

Chris Dorsett

Randy Fisher

Bob Fletcher

Alvin Osterback

Maggie Raymond

Ken Roberts

Kate Wynne

Guests

Randy Cates

Dale Kelly

Conrad Mahnken

Paula Terrell

Staff

Susan Bunsick (Reporter & Notes)

Linda Chaves

Rachel O'Malley

APPENDIX 2

Detailed Discussion Notes – Aquaculture Working Group

Don Kent opened the meeting. Initial discussions focused on the need for NOAA to keep MAFAC informed and for MAFAC to provide policy advice to NOAA. MAFAC's ongoing role is to provide advice to NOAA from diverse segments of the community.

Reference was made to Tony DiLernia's proposal from the full committee meeting earlier in the day regarding 1) the role of MAFAC during the legislative and regulatory process and 2) the need for NOAA to prepare an Aquaculture Development Initiative.

John Forster raised the question as to how frequently the aquaculture group within MAFAC would need to meet, and Alvin Osterback advocated making use of the secure website for communications. Laurel Bryant would provide MAFAC, via the web site, the latest documents as the legislation progresses. MAFAC could make use of conference calls as well.

Various issues on which MAFAC may provide advice were identified, including the permit process, zoning, and identification of appropriate areas for aquaculture.

Discussion then turned to the need for MAFAC to ask NOAA to develop a strawman aquaculture development initiative and bring it to next meeting. This would include identifying 1-2 national goals and a strategy. Issues to be addressed could include seafood production/market issues, impacts of aquaculture on wild stocks, and imports. It is important to have goals against which progress could be measured – e.g., how to achieve a 2 million metric ton/year (mmt/yr) production increase, including milestones to be met and budget requirements over time, taking markets into account –e.g., should there be a national goal with respect to imports? Need to take into account nutritional guidelines that call for an increase from 1 to 2 meals a week. John Forster mentioned there already is a Department of Commerce aquaculture policy with targets. There is a need to set short-term goals to get something done.

A range of issues was brought up, including the need for national zoning, demonstration projects, and advertising. Also the need to consider jurisdictional boundaries – e.g., Will NMFS decide what goes where? Would areas be defined by regional Fishery Management Councils (FMCs)? What about SSCs, advisory panels, and interactions with state boards?

With respect to site selection: Randy Cates noted that Hawaii developed a state plan that will not likely be used because industry wasn't consulted in its development. For example, he wants his aquaculture facility to be near where people fish, but the plan wants to separate aquaculture from fishing areas. He also pointed out a potential conflict with respect to the national goal regarding increased seafood consumption. Consumption won't go up if only high-priced products are produced. Salmon is good example of affordable seafood. Need to consider high prices v. high-volume consumption, chicken

v. prime rib. Don Kent noted the need for a readily available supply of seafood that is market driven.

John Forster suggested that, with respect to zoning, the councils should be asked to come up with areas within their jurisdiction to set up 1-2 demonstration farms. Tom Billy agreed that this is a good idea. Don Kent also noted the development of other species, beyond salmon.

Bob Fletcher raised the issue of non-endemic species. The following discussion suggested the need to manage regionally and limit species, and noted there is a process for issuing Exempted Fishing Permits (EFPs) that involves a regional FMC decision. Randy Cates indicated that he is open to the idea of non-indigenous species. He also pointed out that the only reason Hawaii has aquaculture is demonstration projects.

Kate Wynne brought up the subject of competition with wild in the market, and noted there is a difference between Hawaii and Alaska in terms of the level of their wild stock harvests.

John Forster then turned the discussion to the question of how to involve FMCs right away, including: considering issues relating to which species are grown and competition of these species with wild harvests; how to take away the fear many have of aquaculture; and zoning.

It was suggested that further discussion and development of some guidance follow the lunch break. Items to consider include the process (Tom Billy's ideas), budget items, development of a strawman drawing upon the group's discussion, interactions/web process, and a development initiative/plan that would include budget information and give MAFAC a chance to react.

LUNCH BREAK 1 HOUR

During the lunch break, Tom Billy provided a proposal to Susan Bunsick for discussion after lunch. After the break, Susan Bunsick read the following proposal to the group:

Tom Billy Proposal (as edited/enhanced by Susan Bunsick)

“MAFAC requests NOAA to:

(1) Establish a mechanism to inform the Committee of progress on the National Offshore Aquaculture Act of 2005 and to engage the Committee on related policy issues, including but not limited to:

- (a) approaches to the siting of aquaculture facilities
- (b) candidate species for offshore aquaculture species (including use of indigenous vs. non-indigenous species, etc.)
- (c) the role of regional fishery management councils (FMCs)
- (d) development of the details of the permit process for offshore aquaculture

(2) Develop a draft 10-Year Aquaculture Development Initiative for review by the Committee at its next meeting. The initiative should include:

- (a) National goal(s)
- (b) Strategies for achieving national goals (e.g., regional demonstration projects)
- (c) Program objectives and milestones
- (d) Resource requirements (including budget/staffing)

Also note that there is strong support in the committee for pilot projects to demonstrate technology/science and address environmental issues, appropriate consultation with FMCs, encouraging involvement of FMCs, and establishing protocols.”

Tony DiLernia noted that some FMCs dismissed aquaculture out of hand, so there is a need to get them involved, develop guidelines, and let them know what MAFAC wants them to do – e.g., identify species, review essential fish habitat (EFH) to identify sites that are not EFH that could be considered for aquaculture program. A problem was pointed out in that platforms off California that are being considered for aquaculture are considered to be essential fish habitat. John Forster indicated MAFAC needs to re-think his chairmanship, as there is a need for someone who is more familiar with the FMCs.

Paula Terrell from the Alaska Marine Conservation Council gave a short presentation. She is a commercial troller fisherman. Paula Terrell noted that Alaska is asking for a Legislative Environmental Impact Statement (LEIS) by NOAA on the offshore aquaculture bill. Alvin Osterback indicated that he has language regarding the National Environmental Policy Act (NEPA) requirement to do an LEIS within 30 days of bill’s introduction, before congressional hearings. Paula Terrell also announced that Senator Murkowski introduced a bill, S. 796, urging Congress to ask NOAA to proceed with legislation only after certain information is collected and studies are done, and pointed out that this dovetails with the LEIS. Senator Murkowski issued a press release regarding the need to do an LEIS. Senator Murkowski’s bill amends the National Aquaculture Act of 1980, so it has been referred to the Agriculture Committee.

The discussion resumed around the question of what the group should focus on. A discussion of EFPs and the role of FMCs followed. It was noted that FMC roles vary, but that the issuance of EFPs should include appropriate consultation with FMCs. Ken Roberts, who is from the Gulf, pointed out the need for an FMC role. The Gulf FMC is working on a generic aquaculture amendment, and it has an established structure to get scientific advisory information into the EFP process as an interim measure. Bob Fletcher pointed out that NOAA doesn’t often ignore the FMCs. John Forster noted that FMCs are not uniform. There are process questions associated with EFPs. It was suggested that perhaps EFPs can be for a period longer than 1 year. John Forster asked whether FMCs would be able to do something with respect to outreach. Tony DiLernia suggested sending the offshore aquaculture bill to the FMCs and asking for feedback.

MEETING ENDED AFTER AGREEMENT TO RECONVENE AT 9 A.M. THE NEXT MORNING

DISCUSSION IN FULL MAFAC MEETING (WITH ADDITIONAL ATTENDEES) –
JUNE 9, 2005

John Forster provided a recap of the June 8, 2005 discussions within the aquaculture group.

Randy Fisher noted the need to extend time coverage for aquaculture under exempted fishing permits (EFPs). Tony DiLernia noted that the offshore aquaculture provides for a time frame of 10 years, renewable in 5-year increments. He would prefer a much longer period – e.g., pound nets in Long Island are permitted for 40 years. Don Kent questioned the need for a review process to determine if the permittee is performing as required. He also questioned why there should be an ending date. John Forster worried about politics changing and a permittee being denied renewal even when in compliance with laws, regulations, and the terms and conditions of a permit. Jim Cook asked for information about the scale of an offshore aquaculture operation - e.g., \$100,000 v. \$10 million. Don Kent indicated a cage would cost \$100,000, plus there would be the additional costs of anchoring, feeds, etc. The payback period is typically 4-5 years.

Jim Cook noted that fishermen are already placing “personal FADs” [fish aggregation devices] in the water. Don Kent indicated an Army Corps of Engineers permit is needed for experimental FADs, and that he needed a letter from the Corps for his project. Jim Cook noted there is nothing in fishery management plans (FMPs) regarding FADS.

Bob Fletcher noted the EFP mechanism could be used for demonstration projects, and NMFS could require an annual report on progress. He felt efforts to establish demonstration projects shouldn't be slowed down while waiting for action on the offshore legislation.

Bill Hogarth indicated performance standards are needed; if they are being met, the length of the permit will not matter.

Maggie Raymond indicated her support for FMC-process involvement in offshore aquaculture, and consideration of the impact on EFH. But she also pointed out that the New England FMC, for example, does not have the resources to undertake these actions, so it would be hard to get aquaculture on their priority list. FMCs will need more funding if they are to be involved in this process.

For the offshore bill, NMFS would do an overall programmatic Environmental Impact Statement (EIS) and work with the Councils on the regulations. Tom Billy noted the level of specifics/detail in the offshore aquaculture legislation is about right. He noted the need to have an appropriate legal framework in place, and pointed out that the political process has just started. Bill Hogarth noted that an LEIS would be expensive, and noted that the Administration's offshore aquaculture bill already was amended 3 times in one day. Don Kent pointed out that there is no offshore aquaculture industry,

and recommended some checkpoints to evaluate if the legislation becomes too much compromised by amendments. Tom Billy indicated MAFAC can play that part.

Bill Hogarth noted the need to put a strategy together for getting the offshore aquaculture legislation through Congress – e.g., letters from Randy Cates and others. There will be hearings. He indicated he would like a steering committee (consisting of Randy Cates, Rich Langan, others for a total of 3-5 people) to review the strategy. Then he would like to see a 10-year plan with demonstration projects, which would be sent out to the committee for comment as it is being developed. He noted the need to work with state commissions and states, since they had not seen the draft offshore aquaculture legislation. He also noted that in the interim, the EFP approach is the way to go because NMFS controls the process. Alvin Osterback noted that in developing IFQs, they looked at what was going on in other countries and that helped. He suggested we do the same for offshore aquaculture.

John Forster brought up the zoning issue. Zoning can be done by exclusion – i.e., indicating where you can't go, such as shipping lanes, Marine Protected Areas (MPAs), etc. He noted that you don't need a lot of space for aquaculture, and that zoning would create predictability and reduce the fear factor. Bill Hogarth indicated this is something the FMCs would be good for.

Ralph Rayburn indicated it would be necessary to identify other people from conservation and environmental issue groups, too, and suggested an advisory committee that would report back through MAFAC rather than a steering committee of its own. Bill Hogarth indicated he would like to use MAFAC as much as possible. Jim Cook asked about the size of aquaculture businesses – specifically, whether there are large business interests that could help get the offshore aquaculture bill passed. John Forster said “no”, and indicated most corporate aquaculture is overseas. One big company in the United States is interested, but they are laying low. Don Kent agreed, saying most corporations think globally and are going elsewhere. Tony DiLernia asked why corporations would do aquaculture here, and indicated there is a need to find a way to attract investment. Don Kent noted that U.S. companies are doing tuna ranching in Mexico, and indicated the United States needs to create an environment that promotes investment. Tom Billy indicated a national goal (e.g., trade deficit reduction target, etc.) is needed in a national plan to attract companies. He also noted that big companies typically hang back for a while and then buy out the little guy.

Ken Roberts, referring to Randy Cates' presentation at Capitol Hill Oceans Week, pointed out that there are infrastructure needs and that NOAA has a role in Federal hatcheries and technology, beyond legislation. He noted an earlier earmark on marine aquaculture – the Waldemar Nelson offshore aquaculture feasibility study – and pointed out that there is no parallel technology for hatcheries to develop species for aquaculture. He also noted that no company wants to be tied to a single species. He recommended a role for NOAA in infrastructure development, which no one is paying attention to. Bill Hogarth agreed this is a good point, and brought up the NMFS Milford lab as an example. He noted that interviews to fill the lab director position are coming up. Milford

can provide support not through promotion, but rather in permitting, technology, science, feed, disease, infrastructure. John Forster mentioned the Small Business Innovation Research (SBIR) program grants, which supported development of black cod. He also noted that NOAA's National Marine Aquaculture Initiative (NMAI) funded development of cobia, as well as work at the Oceanic Institute. But these are short-term grants, and core funding is needed to supplement/underpin NOAA's program. Don Kent expressed a need for designated labs where specific expertise is built up – e.g., disease, nutrition, etc. Labs should not duplicate common issues. They should focus on regional species, modeling, etc. Tom Billy also noted there is a role for Sea Grant.

At this point, Bill Hogarth summarized the discussions, recapping as follows:

- Until the legislation is enacted, interim there is an interim need to have EFPs longer than 1 year and to involve the FMCs
- NOAA should use MAFAC as a resource to develop a 10-year plan with milestones and a budget by the January 2006 MAFAC meeting
- NOAA should also use MAFAC as a resource in working with the Hill – e.g., to develop a strategy plan for the near term covering who could be used to work with the Hill, who would testify at hearings, etc.
- FMCs will need to look at demonstration sites – e.g., in Mississippi
- Outreach needs to be part of the plan
- Need to look at a 10-year timeframe, and look at performance
- Need to develop infrastructure – e.g., using the Milford laboratory
- FMCs should be asked to look at a zoning approach

Ralph Rayburn asked whether NMFS sees the aquaculture initiative as the next phase, after EEZ wild fisheries management and moving towards aquaculture for food security and a progression from sustainable fisheries management. There is a need for some venue to jump start things – e.g., a workshop where you can attract people, and keep the momentum going, and tell the story that we should move in this direction.

Bill Hogarth noted that in the context of pressure on fisheries, we'll never get where we were historically. With increasing demand for seafood, aquaculture supplements wild capture fisheries and the two go hand-in-hand. Issues are trade, jobs, communities -- fishermen could be partners with aquaculture, and they could be employed in aquaculture operations. This helps the processing industry, too. Country of origin labeling is coming, and the U.S. label will matter to the public.

Ralph Rayburn noted the need to act as responsible government and take the next step. Bill Hogarth pointed out the next step is regional not national. There is a need to explain the offshore aquaculture bill, and to proceed on the assumption that the bill will pass. There is a need to educate, build support, use Sea Grant to get the message out (Ralph Rayburn is already talking with Kate Naughten, the outreach coordinator for the NOAA Aquaculture Program), internal NOAA outreach/education, workshops, briefings, and a media strategy. A glossy handout would be good, and so would a 10-year plan. He noted a positive reception for the aquaculture bill on the Hill, and indicated he thinks it will pass but probably not until next spring.

Ralph Rayburn noted that Lauren Batte is handling legislative affairs for the bill. There needs to be an honest broker role, with briefings to address the range of concerns and issues. Bill Hogarth agreed on the need to be honest and address the issues – e.g., on the food and feed issue, which is an important one. John Forster asked whether NOAA needs to assume the full burden on all these issues – e.g., there is a role for USDA in feeds, etc. Bill Hogarth noted that aquaculture is a big issue – e.g., in Alaska with respect to salmon and halibut. He noted that the press conference went well, and the news clippings fared well. In particular, environmental groups are not categorically opposed, but they have concerns – e.g., guidelines for effluents. Ralph Rayburn asked Chris Dorsett how it will play out with respect to questions about impacts, sediment, balancing uses. Chris Dorsett indicated there can be constructive discussions.

Tom Billy expressed an interest to be on the aquaculture group. Bill Hogarth indicated these issues will be discussed later.

MEETING ADJOURNED