

**Comments on Staff Working Draft - 2007 Marine Aquaculture Legislation
(November 27, 2007)¹**

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EXECUTIVE SUMMARY

We thank the staff for the opportunity to comment on the November 27 draft of the National Sustainable Offshore Aquaculture Act and for continued consideration of our views. These comments represent the consensus view of the signatories about the specific issues highlighted in this memo. The signatories are a diverse group, representing commercial and recreational fishermen, conservation organizations and consumer protection interests. Some of these groups are likely to submit additional comments on other aspects of the Staff Working Draft on which they have particular expertise or unique perspectives. We hope the staff will consider all comments submitted in the spirit of constructive criticism.

We are grateful for the improvements made to the legislation based on previous comments submitted by a number of organizations on July 28, 2007. There are, however, a number of changes that we suggested in that memorandum that were not addressed, or at least not fully-addressed, in the current Staff Working Draft. On balance, this draft is weaker than the July 20, 2007 draft.

We urge the committee staff to revisit our original comments dated July 28, 2007 (attached) as well as the specific concerns identified below. The following memo details our collective concerns and issues that we feel should be addressed in revising this legislation. Our range of concerns are discussed in more detail in our comments of July 28 and in the body of this memo. Our priority concerns with this draft include:

- The enforceability of the environmental requirements of subsection 9(b) is weakened by requiring only that the requirements be “aimed at” preventing or minimizing harm. We strongly prefer the language of the July 20 draft. This draft continues to restrict offshore aquaculture to native species but does not address the use of fish of local genotype. There is ample documentation of the harm caused by culture of native species that are not of local genotype.
- The use of fish meal, fish oil and similar feed ingredients from *reduction* fisheries should be minimized; however, we do not believe that the same restriction must be applied to the use of meal and oil derived from seafood processing byproducts. Producers should also be required to avoid fish feed derived from species at low abundance and/or experiencing overfishing whether from US waters or abroad.
- We continue to support a 10-year permit, over a 20-year permit, with the opportunity for renewal, but do not see any justification, or precedent, for limited scrutiny of the renewal.
- The protection of public trust resources may be best addressed through the use of liability, rather than only bonding.
- The PEIS process must comprehensively address environmental, social, and economic impacts of offshore aquaculture development.

We look forward to discussing our comments with you and stand ready to work with you to seek resolution on these issues. Please don't hesitate to contact any of us to discuss this further.

BACKGROUND

Legislation drafted by NOAA to pursue the development of “offshore” aquaculture was introduced by request in spring 2007 to both the House and Senate.³ These bills, a revised version of NOAA’s aquaculture legislation introduced to the Senate in 2005 (S. 1195), would establish a permit, research and development program for aquaculture facilities in federal waters. On July 9, 2007, some of the same authors listed above submitted comments to the pending drafts of H.R. 2010 and S. 1609. Later in July, some of us received a new draft from the committee, entitled, “AQUAMAN.9,” which was dated July 20, 2007. Many of these signatories submitted a memorandum on that discussion draft on July 28, 2007.

On November 27, 2007, a Staff Working Draft was released and comments were requested by Senate staff by January 15, 2008. While improved from S. 1609, the current Staff Working Draft still has several substantial deficiencies which we have detailed below. Of particular concern, the draft continues to lack strong environmental protections, including many of those in California’s marine aquaculture legislation⁴ of May 2006 and those discussed in the Woods Hole Oceanographic Institution’s Marine Aquaculture Task Force (MATF) in January 2007.⁵ It also does not adequately consider the likely socioeconomic impacts on fishing communities of offshore aquaculture.

ISSUE SPECIFIC DISCUSSION

Environmental Requirements for Offshore Aquaculture Permits

We are extremely concerned that section 9(b)(1) was changed from “The environmental requirements shall ensure, at a minimum, the prevention or minimization of” to “The environmental requirements shall include measures aimed at preventing or minimizing”. The inclusion of the words “aimed at” weaken the earlier language, which would ensure protection of ocean resources, to language which would simply require measures intended to achieve protection. We urge returning to the original language or using “...environmental requirements shall ensure the minimization, or the complete prevention, of...” as a workable alternative.

We support the change from S. 1609 that increases protection of the marine environment through the requirement that all applicants must demonstrate that the fish farm “will be operated to prevent or minimize adverse impacts on the marine environment” (Section 4(b)(5)). That said, the language from Section 4 could be construed to be in conflict with the similar language in Section 9 discussed above. We believe this is one more reason to amend Section 9(b)(1) as we suggest above.

In addition, the draft currently does not require baseline data and information to be collected before permitting, a necessary process to allow a determination of impacts on fisheries and marine ecosystems going forward. Understanding environmental impacts requires “before and

³ Several amendments were introduced with the Senate bill and are not discussed here.

⁴ “The Sustainable Oceans Act,” is available at <http://govdocs.aquake.org/cgi/reprint/2006/605/6050010.pdf>.

⁵ “Sustainable Marine Aquaculture: Fulfilling the Promise; Managing the Risks,” available at http://www.pewtrusts.org/pdf/Sustainable_Marine_Aquaculture_final_1_07.pdf.

after” data to robustly evaluate the nature of a purported impact. Without this information, conclusions will be unfounded.

The draft also does not require tagging and marking of farmed fish nor does it require the use of drugs, or pesticides, antifoulants and other chemicals with potentially harmful impacts, to marine life to be “minimized”. Ecologically, it makes sense to minimize the use of drugs and other potentially harmful chemicals in the marine environment. Tagging should be done in all cases, not simply “to the maximum extent practicable” as indicated in Section 9. The technology for tagging fish is growing rapidly and includes physical tags, thermal marking, DNA markers and naturally-varying isotopic signatures. Moreover, tagging is necessary to track and assign ownership of escaped fish.

Finally, as currently written, Section 9(b)(I)(A) of the draft is confusing because it is unclear what “prevented” or “minimized” means, what the difference is between these terms, and which harms must present a “significant environmental harm,” before they are minimized or prevented. In our past comments we stated that because of substantial uncertainty and environmental risk concerning diseases, parasites and escapes, these three issues should always be prevented or minimized. We re-iterate this point and suggest language such as the following:

“(A) risks to and impacts on natural fish stocks and fisheries, including safeguards –(i) needed to conserve genetic resources; (ii) to minimize the transmission of disease or parasites to wild stocks; (iii) to minimize the escape of cultured species and completely prevent escapes that may cause significant environmental harm.”

Genetic Stock of Cultured Fish

We support the requirement in Section 9(b)(2)(B) that “cultured species propagated and reared through offshore aquaculture be species native to the geographic region in which the offshore aquaculture facility is located” and in Section 9(c)(2) outlawing the use of genetically modified species. These are very important provisions.

However, Section 9(b)(2)(b) omitted mention of fish genotype, which was in the July 20 draft. At least in the case of Atlantic salmon, the scientific literature documents harm to wild fish populations from interbreeding between genetically divergent escaped farmed salmon and wild salmon – even though the farmed species is native to the geographic region. We urge you to reconsider the change you made to this section. As recommended by the Marine Aquaculture Task Force, the problems of aquaculture facilities raising native species that are not of local wild genotype of the geographic region in which the offshore aquaculture facility is located must be sufficiently addressed.

Permits and Permit Conditions

We previously requested that the legislation make clear that permits could not be issued until the rulemaking process was complete. Thank you for retaining this change in the current draft in Section 8(a). While we are supportive of a 10-year permit (vs. a 20-year permit) we remain concerned that section 8(a)(3)(C) was changed from “the permit shall have a duration of 10 years, renewable thereafter at the discretion of the Secretary in increments of up to 10 years” to

“...the permit shall have a duration of 10 years, and shall be renewed before the end of that period, unless it has been revoked, denied or modified pursuant to section 8(c)(6) or section 14(c) of this Act. The Secretary may modify the terms and conditions of the renewed permit as necessary.” This new language presumes that the permit will be renewed without a formal review of the existing permit conditions before reissuance. Furthermore, this new language would allow the Secretary to extend permits beyond the 10 year time frame, which we do not believe is in the best interest of ocean protection.

Fish Feed

We are supportive of the language under Section 9a (Environmental Impact Statement), especially the requirement that the PEIS consider “the effects of sourcing feed, especially fish meal and fish oil, on marine ecosystems”. The reliance of aquaculture on wild-caught fish for feed ingredients is arguably one of the most important constraints on the development of sustainable offshore aquaculture, both within the U.S. but also globally.

We recommend that Section 9 (b)((2)(F) be modified, however, to make clear that reliance on wild-caught fish must be minimized, not simply reduced, or that the bill simply prohibits fish farming that results in a net loss of protein from reduction fisheries. We also urge you to include language that prohibits the use of fishmeal and oil from any fishery classified by relevant state/provincial, national, or international fisheries authorities as “at risk of reduced reproductive capacity;” “suffering reduced reproductive capacity;” “harvested outside precautionary limits;” “over-exploited;” “depleted;” “overfished;” “overfishing is occurring” or any other comparable classification. This would ensure that the same standards are applied to fisheries not currently subject to the Magnuson-Stevens Fishery Conservation and Management Act.

To facilitate a net fish protein gain and reduce reliance on ocean resources for feed, offshore aquaculture operations should be encouraged to seek out alternatives to fish meal and fish oil from reduction fisheries, such as processing byproducts (i.e. offal) from food grade fisheries. For this reason, we recommend that Section 7(b)(1) under the Research and Development section be revised to read “to reduce the use of wild fish parts or products from reduction fisheries in offshore aquaculture feeds”. Finally, using the term “reduction fishery” will require that a definition be added to Section 3 that a reduction fishery is a “fishery from which marine species are caught for the purpose of conversion to meal, oil, or similar products, for purposes other than direct human consumption”.

Transparency

The Staff Working Draft should require that public hearings, minimum public notice and public comment periods be at least as strong as in other federal environmental and resource extraction statutes. As currently drafted, Section 8 merely provides that the Secretary provide “public notice and opportunity for public comment” without specification.

The draft also does not clearly identify and limit the types of information that may be withheld from the public based on business confidentiality. Data such as stocking densities, fish mortality, escapes, disease prevalence, chemical and drug use and other biological and water quality parameters should be made available to the public so that they can understand the impact of aquaculture facilities on public waters and participate in an informed manner in decision-

making about those facilities. Moreover, only by making environmental data available to scientists in the public domain will research scientists be able to study the impacts of fish farming at the appropriate spatial and temporal scales. We urge the staff to carefully narrow the types of information that can be considered confidential in this section.

Three Year Facilities Removal

Appearing for the first time, the current working draft allows fish farmers a full three years to remove their facilities after expiration of the permit under Section 8(a)(3)(D). We are aware of no justification for such an extended period for site clean-up after farming operations cease. Planning, sub-contracting and other aspects of the removal process could and should begin as the permit expiration approaches. We suggest facilities be removed as soon as practicable and, in no case, longer than 12 months from the expiration of the permit.

NEPA Review

While we are generally pleased with the NEPA provisions, we are very concerned that specific language in the PEIS Section 9 is weaker than it was in the previous draft of the legislation. In the July draft, Section 9 (a) stated, “The [PEIS] shall analyze measures for managing offshore aquaculture in a *precautionary* manner that avoid, minimize, and mitigate adverse impacts, including cumulative impacts” (emphasis added). The current draft states, however, that, “[t]he statement shall analyze measures for managing offshore aquaculture in a *sustainable* manner that avoid, minimize, and mitigate adverse impacts, including cumulative impacts” (emphasis added).

By changing “precautionary” to “sustainable,” the set of mitigation measures and alternatives that the agency would evaluate as part of its PEIS might be different. A precautionary approach requires that all reasonable alternatives and mitigation measures need to be evaluated, based on their ability to prevent the possible environmental and socioeconomic harms of aquaculture, even if there is incomplete scientific knowledge about such impacts. However, the often overused term “sustainable” suffers from multiple definitions and it implies nothing about whether mitigation measures should be evaluated or employed in the face of scientific certainty of the impacts. Under this approach, it is possible that NOAA would only evaluate mitigation measures and alternatives for offshore aquaculture when it believed there was demonstrable proof of such impacts, and only when those measures were compatible with the long-term continued presence of aquaculture facilities.

Given that offshore aquaculture is a fledgling industry there is a great need for NOAA to employ a precautionary approach, especially to industry expansion. Indeed, in its *Code of Conduct for Responsible Aquaculture, Development in the U.S. Exclusive Economic Zone*,⁶ NOAA calls for offshore aquaculture to “adopt the guiding principle of a precautionary approach combined with adaptive management to achieve sustainable development in offshore waters.” We are supportive of this statement and suggest the word “precautionary”, and the approach to scientific uncertainty that it implies, be inserted back into the Staff Working Draft.

Fees, Bonds and Liability

The Administration’s bill requires permit holders to post bond to cover any unpaid fees, the cost of removing an offshore aquaculture facility, and “other financial risks identified by the

⁶ Available at: www.nmfs.noaa.gov/trade/AQ/AQCode.pdf.

Secretary.” Section 8(b)(3) of the Staff Working Draft stipulates that such bonds must also include amounts sufficient to cover “potential adverse impacts to the marine environment.” Although the Administration’s language provides the Secretary of Commerce with discretionary authority to include such costs in the bonding requirement, the staff draft makes it a specific requirement and is thus an improvement.

While this language is an improvement to the administration’s proposed language, in practice it will be difficult to monetize adverse impacts of aquaculture on the marine environment in advance of a harmful event. As a result, establishing some form of general liability for natural resource damages resulting from offshore aquaculture may be a preferable approach. In fact, this is the approach taken for marine finfish aquaculture under California’s Sustainable Oceans Act (codified at section 15409 of the California Fish and Game Code): “Marine finfish aquaculture lessees shall be responsible for any damages caused by their operations, as determined by the Commission, including, but not limited to, reimbursement for any costs for natural resource damage assessment.” Under this approach, the amount of damages for a particular incident will be determined by the California Fish and Game Commission. An analogous approach at the federal level would be for NOAA to determine damages after application of the Natural Resources Damage Assessment program.

An alternative approach for establishing liability for natural resources damage from commercial operations in the marine environment is the provisions of Title I of the Oil Pollution Act of 1990 (“OPA”). In general, the law makes owners and operators of offshore oil and gas facilities responsible for removal costs and natural resource damages resulting from oil spills in the navigable waters of the United States. There are several defenses to this liability, including “acts of God”, acts of omission of a third party, and “discharges” permitted by a lawful permit. This approach achieves two goals. The establishment of limits and defenses to liability protects the public interest in recovering natural resources damages, while at the same time establishing a rational basis for liability insurance for the proposed activities. Importantly, however, OPA removes the limitation on liability in the case of gross negligence or willful misconduct on the part of the facility owner or operator. To apply this approach to aquaculture, the limits and defenses to liability would need to be adjusted to the scale and specific likely impacts of aquaculture operations. While this may be difficult to do in a nascent industry, the OPA provisions represent a well thought out approach to assigning responsibility for private damage to public marine resources and warrant further consideration.

As is clear, the issue of liability is a complicated area of the law and one where we would be happy to work with you on identifying and applying appropriate models to the Staff Working Draft.

Finally, like the comments some of us made in a July 9, 2007 memorandum concerning H.R. 2010 and S. 1609 (attached), we believe that the current Staff Working Draft neglects to require offshore aquaculture companies to pay a fair return for use of public trust resources. We urge that it be revised to ensure fair public return for use of offshore aquaculture sites⁷. We also

⁷ The Federal Land Policy and Management Act, Surface Mining Control and Reclamation Act, Mineral Leasing Act and Taylor Grazing Act, among others, all contain a form of leasing and/or royalty requirements to compensate the public for the use or degradation of a public resource.

believe that there should be a requirement that permit fees cover the program costs, including the permit process, monitoring the facilities, and enforcement of permit conditions. These costs should be internalized by the fish farming industry – otherwise, taxpayers will be subsidizing aquaculture permit-holders.

Habitat Protection

We remain concerned about the provision of the bill that would allow fish farming operations to be permitted in Essential Fish Habitat and/or Marine Sanctuaries. We refer you to our previous comments where we recommend a ban on offshore aquaculture operations in sensitive habitats like EFH and Marine Sanctuaries and would welcome the opportunity to discuss with you further how the language could be strengthened to address this important issue.

Citizen Suit Provision

Many federal environmental statutes contain citizen suit provisions which allow the public as well as the government to enforce permit conditions. The purpose of these provisions is to allow individual groups to help police the statute, especially when the government does not act or does not act fast enough to prevent harm. Without such a provision, only the government is left to enforce the Act. The Clean Water Act should be viewed as a powerful and successful application of this concept. As such, a citizen suit provision should be included in the Staff Working Draft.

Socio-Economic Considerations

As we stated in our comments of July 28, 2007, we urge a strong statement in statutory standards such as “the development of offshore aquaculture shall not adversely affect wild fisheries”. In that light, the Staff Working Draft should require during the PEIS process the consideration of socioeconomic impacts on fishing and other activities, and the communities that depend on these activities, or otherwise require studies on likely economic and social impacts of aquaculture in advance of permitting.

“National Interest” Standard

We are also concerned about the draft’s “National Interest” standard that the Secretary must apply when deciding to disapprove, suspend, modify, or revoke a permit. This is an extremely broad standard, and it is unclear what this term means, making it vulnerable to different interpretations. We are concerned that this standard could allow the Secretary to decide not to disapprove, revoke, suspend, or modify a permit, even if this would be in the best interest of the marine environment and fishing communities.

CONCLUSION

Thank you for considering these comments on the most recent Staff Working Draft. While the signatories to this memo continue to have substantial concerns with a number of its elements, we stand ready to work with you to seek resolution on these issues. Please don’t hesitate to contact any of us to discuss this further.
