



THE CENTER FOR  
FOOD SAFETY

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Michael Rubino, Ph.D.  
Manager, NOAA Aquaculture Program  
1315 East-West Highway, Rm. 13117  
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Re: 10-Year Aquaculture Plan

November 30, 2006

Dr. Rubino:

The Center for Food Safety (CFS) is a non-profit, membership organization that works to protect human health and the environment by curbing the proliferation of harmful food production technologies and by promoting organic and other forms of sustainable agriculture. See generally <http://www.centerforfoodsafety.org>. As part of this mission and particularly relevant here, CFS works to activate and educate federal agencies, consumers, chefs, grocers, fish retailers and legislators on the need to protect seafood consumers and our water environments from the dangers posed by aquaculture practices and genetically engineered fish.

We write to comment on the November 6, 2006 Federal Register notice "Interim Final 10-Year Plan for the NOAA Aquaculture Program, November 2006." Our comments are as follows:

Industrial development of marine aquaculture must not occur at the expense of wild fish stocks, biodiversity, or the health of the ocean's ecosystems. Strong environmental standards are essential to ensure that marine resources are fully protected. If aquaculture is allowed to proceed without proper environmental and health protections, the NOAA aquaculture program will only add to the ocean resource problems it is purportedly intended to alleviate. We have grave concerns and reservations about the feasibility of certain types of marine aquaculture, especially offshore or open-ocean systems, and the farming of certain species, in particular carnivorous fishes, or the possible farming of any genetically engineered fish.

Simply put, NOAA's "Plan" as written is not a plan; rather, the document is merely a justification for NOAA's agenda. The "plan" lacks any timelines, measurable goals, or benchmarks. Rather, NOAA's 10-Year Plan serves only to justify the proposed aquaculture program, instead of laying out

a strategic plan for how the agency proposes to safely develop marine aquaculture and protect our ocean environments. It does not present a realistic picture of challenges and does not adequately address issues that need to be explored and resolved before a marine aquaculture program can proceed.

CFS strongly recommends major revisions to the draft "10-Year Plan for the NOAA Aquaculture Program."

#### General Overarching Policy Recommendation: A Precautionary Approach

CFS believes that sound science, precautionary principle and natural resource protection should dictate the pace of aquaculture development. A precautionary approach should be adopted that will place the burden of proof on the industry. Unless science supports the premise that marine aquaculture can proceed without harm to the resource and adequate natural resource protections are in place, development of industrial-scale aquaculture operations should not be permitted.

#### Recommendations for the 10-year Plan's Goals:

First and foremost, a plan goal should be included to specifically address the protection of the environment and natural resources. In addition, research referenced in the plan (including development of new technologies) should make resource protection the priority. NOAA's priorities and goals are precisely backwards: the priority should be to do no harm to the environment before beginning this development program. This concept is not found anywhere in the main body of the plan, not brought up at all until the last page of the document's appendix (p.20), in a reference to NOAA's 2005 "Annual Guidance Memorandum for Fiscal Years 2008-2012." Even these passing and marginalized references fail to include any specific environmental protection standards.

Second, under the Plan's Goal #1, environmental and human health protection standards for responsible marine aquaculture development should be enforceable, not simply "review aids." Environmental, social and economic standards should be enforceable and quantifiable rather than discretionary guidelines. These standards must be integrated into any revised proposed offshore aquaculture legislation. Economic, social and environmental factors should be fully described and mandatory guidelines developed to ensure minimal adverse effects on sustainable uses of wild stocks, their economies and the environment.

As part of this delineation, environmental standards should include, but not be limited, to:

- Prohibiting ocean farming of carnivorous and/or anadromous fish. At a minimum, there must be dramatically reduced reliance on wild-caught fish for use in aquaculture feed. Under "Outcomes," the plan lists mostly carnivorous species, such as cod and tuna, as suitable candidates for aquaculture. Diets formulated for these species are comprised mainly of wild-caught forage fish, resulting in a substantial net loss to the ocean food web and negative impacts on wild predators;
- The express prohibition on farming of genetically engineered fish. In addition, NOAA should restrict farming to fish derived from local stocks of native species, precluding the use of non-native and genetically altered fish. It also would prevent the farming of native fish

that are farm-adapted, genetically uniform or genetically adapted to a different region.

- Safety of aquacultured seafood through regulations establishing organic standards, prohibiting the use of antibiotics, hormones, drugs and chemicals, and through proper testing;
- Measures to protect wild fish stocks, e.g., disease prevention, tagging of aquaculture stock, elimination of possible escapements;
- Preventing aquaculture waste products from polluting marine ecosystems;
- Prohibiting the conversion of unused oil and gas platforms into fish farms (so-called “rigs to reefs” provisions);
- Regular monitoring and assessment of environmental impacts.

Third, Goal #3, “improve public understanding of marine aquaculture,” should seek to improve overall understanding and education in regard to marine aquaculture. The dialog should not be one-sided, as NOAA’s draft currently is. NOAA should value input from stakeholders and use feedback to improve the agency’s own understanding of the issues. NOAA’s outreach and education efforts should represent all stakeholder viewpoints and supporting research. The goal should not be to launch an industrial aquaculture promotional campaign under the guise of an educational program, but rather to serve the public interest by providing the best available information, including equitable representation of all stakeholder viewpoints and supporting research.

Fourth, Goal #4 calls for implementation of the United Nations Food and Agriculture Organization (FAO) Code of Conduct for Responsible Fisheries, yet the plan is not designed in accordance with the Code. In particular, NOAA’s draft 10-year plan ignores provisions in the FAO Code that should be addressed in the planning stages of an aquaculture program. Codes of conduct should be required not discretionary.

For example, the plan fails to acknowledge the National Environmental Policy Act (NEPA) requirement to prepare a Legislative Environmental Impact Statement (LEIS). An LEIS is a crucial tool for decision-makers to evaluate the environmental consequences of proposed legislation. A programmatic EIS does not replace the need for an LEIS. Under Article 9 - Aquaculture Development - in the FAO Code of Conduct, provision 9.1.2 asserts that “states should promote responsible development and management of aquaculture, including an advance evaluation of the effects of aquaculture development on genetic diversity and ecosystem integrity, based on the best available scientific information.” Before Congress is asked to pass legislation that seeks to expedite offshore aquaculture development, the environmental impacts of the program should be evaluated and comprehensively described. In order to fully implement the Code of Conduct, the plan should specify that adherence to the code’s provisions be mandatory.

#### Procedural Recommendations:

- The draft plan does not outline NOAA’s proposed decision-making process for approving, planning, and regulating marine aquaculture operations. An outline of these procedures must be included and should clearly define the roles and rights of states, including a state’s right to

opt-out of allowing aquaculture operations off its shores.

- In Appendix 1, NOAA states that aquaculture activities are subject to review under the Magnuson-Stevens Fishery Conservation and Management Act. As responsible authorities for the sustainable management of wild fish stocks, the Regional Fishery Management Councils should be consulted in the process of site selection, species selection, and other considerations necessary to safeguard federally-managed fisheries and essential fish habitat. Council involvement and jurisdiction in these issues should be clearly delineated.
- All decision-making procedures should be transparent and allow for the consideration of meaningful public and stakeholder input.

#### Adequate Opportunity for Meaningful Public Comment

CFS calls on NOAA to incorporate these recommendations into a new draft of its 10-year plan, allowing adequate time (minimally 30-60 days) for public review of the revised document. The Federal Register posting of the current plan version on November 6, 2006 with a deadline of November 30, 2006 for comment was grossly inadequate, especially considering that two observed holidays, Veterans Day and Thanksgiving, fall within the time period. There is no adequate reason for rushing into the creation and adoption of a plan that will be impacting Americans and publicly-owned marine resources for the next ten years and beyond.

Sincerely,



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