

TASK FORCE ON SEAFOOD & AQUACULTURE

Background

In 2002, the Maryland General Assembly passed House Bill 662. Filed by (then) Delegate Kathy Klausmeier and supported by many others (49 in all) including Delegate Tony O'Donnell. Bipartisan support for the legislation led to creation of a "Task Force to Study the Economic Development of the Maryland Seafood and Aquaculture Industries."

The Task Force consisted of workgroups for the seafood and aquaculture industries. With forty members specified for the workgroups from a range of categories, the Task Force was given until September 2004 to make recommendations for rebuilding these industries.

Organization

The aquaculture industry workgroup consist of nineteen (19) members:

- two members of the House of Delegates, appointed by the Speaker of the House;
- two members of the Senate, appointed by the President of the Senate;
- the Secretary of Agriculture or the Secretary's designee;
- the Secretary of Business and Economic Development or the Secretary's designee;
- the Secretary of the Environment or the Secretary's designee;
- the Secretary of Health and Mental Hygiene or the Secretary's designee;
- the Secretary of Natural Resources or the Secretary's designee;
- four representatives of the University System of Maryland, appointed by the Chancellor of the University System of Maryland or the Chancellor's designee as follows:
 - ❖ one representative of the University of Maryland Biotechnology Institute;
 - ❖ one representative of the College of Agriculture and Natural Resources;
 - ❖ one representative of the University of Maryland Center for Environmental Science; and
 - ❖ one representative of the Maryland Sea Grant College;
- one representative of the Maryland Watermen's Association;
- two representatives of the Maryland Aquaculture Association;
- one representative of the Food Dealers Council of the Maryland Retailers Association;
- one representative of the seafood processing industry, appointed by the Secretary of Agriculture; and
- one representative of the seafood value-added food manufacturing industry, appointed by the Secretary of Agriculture.

Tasks

The legislature specified that the workgroup should:

- assess the status, economic viability, and potential of the Maryland aquaculture industry;
- assess the economic, technical, and educational requirements for enhancement of the Maryland aquaculture industry;
- develop mechanisms to enhance coordination among agencies and the University of Maryland to strengthen the aquaculture industry;
- study and recommend innovative methods for aquaculture to target commercial production and restoration of critical species;
- review methods undertaken in other states to develop their aquaculture industries;

- consider and include as appropriate in its report the findings of any other task force or work group engaged in a study that impacts the economic development of the aquaculture industry; and
- review and evaluate legislative and regulatory issues and permitting procedures to facilitate sustainable development of the industry

The task force met for eighteen months, discussing and evaluating problems facing those who wish to engage in aquaculture. During that time, the University of Maryland Agricultural Experiment Station (AES) funded an “Aquaculture Development Conference,” which was held in August 2003. This meeting brought national experts to Maryland who had experience with aquaculture issues. Representatives from Alaska, Florida, as well as several Mid Atlantic states, attended and shared ideas on building aquaculture.

Seven subcommittees were established to address identified topics. Each subcommittee researched, evaluated and issued a preliminary report related to their topic. These reports were distilled into recommendations to create an infrastructure guiding responsible development of the industry and to provide Maryland with expanded economic development, increased employment, and diversity in agriculture.

The Aquaculture Workgroup recognized the importance of establishing commercial aquaculture as a priority economic development activity in certain areas of the state. State agencies, institutions, commissions and other stakeholder organizations were urged to provide support and a regulatory framework to facilitate the growth of aquaculture without compromising environmental integrity or public health. Biological, technical, regulatory, financial, political, social and environmental issues were identified for resolution for the industry to reach full potential. The aquaculture workgroup recommendations provided a basis for that process and members stressed the importance of cooperation in policy development.

Recommendations:

1. **Aquaculture Review Board:** Establish a single point of contact for aquaculture applications through a Review Board whose members include agencies having regulatory responsibility for aquaculture or a role in aquaculture development. This Board would be chaired by the Maryland Department of Agriculture, Aquaculture Coordinator. The Aquaculture Coordinator will need support staff and resources to track applications through the relevant agencies, to hold consultations with applicants on compliance requirements, to coordinate Maryland aquaculture policy development, and to be responsible for:
 - Issuing aquaculture permits that are approved by the Review Board
 - Administrative support for the Aquaculture Coordinating Council
 - Providing an annual summary to the General Assembly on aquaculture development activities.

Rationale: It was frequently noted in discussions with industry members who had tried to develop aquaculture businesses in Maryland or had worked in this capacity, that there needs to be a single point of contact for aquaculture applications in the State, similar to successful programs in other states. The number and type of permits needed for aquaculture depends on the species cultured, technology used, and size and location of the operation. Currently, an aquafarmer identifies what permits are needed and applies to individual agencies. This process is burdensome, time-consuming, and can take years to complete. This delay can be attributed to lack of coordination between agencies when reviewing applications and the fact that existing laws and regulations were not developed specifically for aquaculture oversight, creating indistinct compliance requirements. The Aquaculture Review Board would expedite this process by creating a one-stop shop for applications and a coordinated, timely review process based on industry specific regulations and best management practices.

2. **Coordinating Council:** Restructure the Maryland Aquaculture Advisory Committee as a Coordinating Council consisting of three representatives of the aquaculture industry, two members of the seafood industry, a representative of the Maryland Departments of Agriculture, Natural Resources, Environment, Public Works, Business and Economic Development, the Natural Resources Police, and Health and Mental Hygiene, and one each from university research and Extension. The committee will, within one year of formation, develop best management practices (BMP) for freshwater and marine aquaculture which will provide guidance for aquaculture permitting and compliance. Best Management Practices will serve as the basis for developing applicable tidal and non-tidal aquaculture regulations, notwithstanding existing federal regulations and programs and will ensure that commercial aquaculture is conducted in a manner that protects the public health. In addition, the Coordinating Council will periodically review BMP's and state regulations impacting aquaculture and make recommendations on their relevance and needed changes. The Council shall establish subcommittees, with membership at their discretion, to provide technical information on topics or issues that the Council may address.

Rationale: The current Maryland Aquaculture Advisory Committee was established to promote the development of aquaculture in the state. The industry needs more specific guidance from a group of stakeholders with diverse expertise in issues having a direct effect on aquaculture. Industry members and agency representatives on this committee will have a working knowledge of aquaculture production and regulatory oversight within their respective agencies. The Advisory Committee will be restructured as a council that develops proposals

for advancing the industry, reviews regulations, and develops best management practices. These proposals will help to develop a comprehensive regulatory structure for permitting used by the Aquaculture Review Board.

3. **Aquaculture Enterprise Zones:** The Aquaculture Coordinating Council shall establish pre-permitted Aquaculture Enterprise Zones to encourage responsible and sustainable development of aquaculture in the Chesapeake and Coastal Bays. Aquaculture would be specified as a priority activity in these zones, providing streamlined permitting and incentives for private investment. Zones would be certified as appropriate for raising fish and shellfish for consumption and would be marked as such. Wherever possible, watermen with historical records of seafood harvesting should be encouraged through development projects within these zones to learn new techniques and adapt to aquaculture businesses to provide them with economic incentives and a means of continuing to work the water using new techniques to raise seafood.

Rationale: Major problems have plagued the development of shellfish aquaculture in Maryland. These include obtaining permits and leases, both on bottom and in the water column, limited state resources for individual site inspections, certification and patrol of sites, and the ability to assure compliance with the National Shellfish Sanitation Program. If these issues are not addressed in a substantive manner, there will be little expansion of this part of the industry. Pre-permitted aquaculture enterprise zones, established in approved waters, will provide a means for the legislature to specify areas where aquaculture will be a priority. These zones would eliminate delays in site permitting, be more readily patrolled by authorities, reduce demand for existing resources, and create incentive for private investment in shellfish production.

4. **Demonstration and Extension:** Provide appropriate funding for the University of Maryland Agricultural Experiment Station (UMAES) to provide demonstration and education projects for prioritized industry issues with oversight by the Aquaculture Coordinating Council. Part of this fund (\$750,000) would be used to support Research and Demonstration projects that utilize scientific expertise in solving industry problems and producing results through interaction with commercial producers. A portion (\$100,000) will be used to support Industry Development Initiatives for ideas coming from producers. These will be limited to \$10,000 per project and may not be used for salary. Proposals will be reviewed by University of Maryland Extension faculty, who will provide a continuing link with the producers throughout the life of the project. Projects will result in innovations deriving from ideas of producers for enhanced production or economic efficiencies.

To support development of a commercially viable industry, extension services will be funded at \$100,000 annually. This will allow extension faculty to continue services to the industry while being able to contract with other departments for needed expertise on a short-term basis.

Support for annual conferences (\$25,000 each) are requested to continue programs funded by the UMAES in 2003 and 2004. One will be an annual producer conference targeting aquaculture businesses and provide growers with the latest information on production, legal and regulatory issues, and provide a forum for sharing information leading to a better voice for the industry. The second will be an annual University System of Maryland Aquaculture Symposium to allow faculty to interact and share ideas and research opportunities with each

other for enhancing the industry. This meeting will foster interaction between faculty on various campuses and with disciplines required to assist industry development. It will aid in cross-pollinating ideas through shared experiences and provide a way for industry and academia to meet in an open forum to find ways to solve problems.

Rationale: In order to assist in the development of the aquaculture industry technical, legal, and production problems will need to be solved. The University System of Maryland, along with the other public and private institutions of this state, offers expertise that can be directed to solving these problems.

The UMAES has a history of directing funding for aquaculture development by targeting specified research at the direction of an advisory board. This structure could be used to enhance the industry by directing funds towards better growing methods and equipment, processing techniques, and market research.

A key need for industry is the funding of quick projects designed to solve problems. This approach has been instituted in several other states with excellent results. Applications are generated by industry and assessed by research and extension faculty. An extension specialist is designated to act as liaison with industry in the project. At the conclusion, results are considered to be in the public domain, as long as specific sales and/or marketing information is not compromised.

5. Natural Resources Funding: Appropriate funding for additional Maryland Department of Natural Resources for permitting, enforcing regulations, and patrolling aquaculture sites. Currently, there is no DNR staff working full-time on aquaculture. Natural Resources staff and NRP officers support programmatic activities as part of their duties. The effect of an increase in the number of aquaculture sites upon DNR cannot currently be accurately estimated. However, Task Force recommendations have been evaluated to determine effect on existing Departmental sectors and staff.

Rationale: The Department of Natural Resources (DNR) has several roles relating to aquaculture, including site registration, bottom leasing, and natural resource protection and enforcement via the Natural Resource Police (NRP). An increase in the number of aquaculture operations is anticipated if recommendations in this report are instituted. Land-based aquaculture sites typically require less resource dedication than shellfish aquaculture operations in public waters. However, an increase in shellfish aquaculture sites through the establishment of enterprise zones, and an increase in bottom leasing will require significant management and enforcement by DNR. As this process evolves, DNR will need to substantially increase staff and operating budgets to effectively protect natural resources and ensure regulatory compliance.

6. Department of Environment Funding: Appropriate funding for additional Maryland Department of Environment, Technical and Regulatory Services Administration staff to conduct surveys and to certify additional shellfish growing waters and enterprise zones in the Chesapeake and Coastal Bays. For safety purposes while working on the water, the assumptions are that two-person teams would be employed. Monitoring requirements to open new sites require approximately 30 samples over several years and periodic shoreline sanitary surveys.

Rationale: Maryland has an effective program of monitoring shellfish growing waters to ensure the protection of human health. In order to maintain the integrity of this program, satisfy the requirements of the National Shellfish Sanitation Program, and provide the expanding industry with inspection, certification and monitoring services, the Department of Environment will require additional staff and funding. Annual costs for monitoring and assessing an individual site are estimated to be \$10,550. However, multiple sites in proximity to each other, or to other natural bottom harvesting activities, that can be visited in a single field trip, such as might be envisioned in an enterprise zone, may cost as little as \$3,430 per site (assuming that approximately five sites could be visited in a single day). As the industry expands, this will become a significant departmental expenditure.

7. **Revise Leasing Prohibitions:** It is recommended that the State provide for additional private leasing of Maryland's Chesapeake and Coastal Bays by lifting the moratorium on bottom leases in individual counties. Lifting the leasing moratorium and creating aquaculture enterprise zones will promote shellfish aquaculture which will provide the Maryland aquaculture and seafood industries with expanded opportunity for growth and help to rebuild shellfish stocks and improve water quality in the Chesapeake region.

8. **Non-native Oysters:** It is recommended that the State consider, study, and possibly confirm the use of non-native oyster species for aquaculture in areas presently unable to support native populations. These non-natives may be able to tolerate the current conditions and provide growers with a harvestable product while native populations rebound. Non-native species may also serve to improve water quality and provide the habitat for other aquatic animals that once existed on natural oyster bars in the Chesapeake.

Resulting Legislation

The recommendations of the Aquaculture Workgroup were addressed in House Bill 971 introduced by Delegate O'Donnell in the House, with companion bill sponsored by Senator Klausmeier, and passed by the 2005 General Assembly. The act designated a Seafood Marketing and Aquaculture Development Program within the Maryland Department of Agriculture. It authorized the Aquaculture Review Board and the Aquaculture Coordinating Council. These were charged with promoting the development of an aquaculture industry in the state. Also included was the designation of an Aquaculture Coordinator to assist in obtaining the permits and licenses necessary to conduct aquaculture in the state, with MDA designated as the lead agency for coordinating and streamlining the permitting process.

The Review Board was specified to include five members representing agencies involved in permitting or oversight of permit compliance, and chaired by the Aquaculture Coordinator.

The role of the Review Board was to:

- coordinate the development of statewide aquaculture policy and, to the maximum extent feasible, be streamlining of the application process;
- tracking each application as it progresses through each department; and
- ensure full and meaningful departmental communication with an applicant during each stage of the application process.

The Aquaculture Coordinating Council was specified to consist of 17 members in various categories representing the legislature, state agencies, institutions, aquaculture industry, and seafood harvesters. The role of the Coordinating Council was to:

- annually formulate and make proposals to the Governor and chairs of the House and Senate environmental committees for the purpose of advancing Maryland aquaculture
- establish and monitor a grant program for industry projects
- conduct applied studies of projects and products to expand the aquaculture industry
- conduct market tests for new aquaculture products
- implement pilot projects and small commercial demonstrations to result issues and educate industry, regulators, and other partners
- support the industry in efforts to implement innovative procedures and comply with regulations
- enhance awareness of these products and programs among the public
- develop Best Management Practices before December 31, 2006 for the aquaculture industry in order to provide guidance for permitting and serve as the basis for state regulations regarding title and nontidal aquaculture
- provide for the establishment of Aquaculture Enterprise Zones in the Chesapeake and coastal Bays that would streamline permitting, provide incentives for private investment in leasing, and encourage watermen to enter the industry
- regularly review state regulations aquaculture and make recommendations to the Aquaculture Review Board regarding necessary or advisable changes

Activities to Date

The Review Board and Coordinating Council organized and began operating during 2006. During its first year the Coordinating Council met its charge and developed Best Management Practices within the allotted time frame. This was done by organizing into six sub-areas and involving members of the Council and those knowledgeable about the industry to participate. All meetings of subcommittees were open to the public. Information on the Best Management Practices is included in Chapter 9-Managing Maryland Aquaculture.

The Coordinating Council is currently engaged in developing Aquaculture Enterprise Zones. This information is included in Chapter 10.