

MARYLAND AQUACULTURE COORDINATING COUNCIL

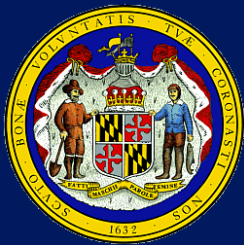
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Prepared by the Maryland Aquaculture Coordinating Council

November 2025

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2021

Maryland Aquaculture Coordinating Council

Annual Report 2021

Report on Council activities with recommendations for advancing Maryland aquaculture
Presented to the Governor of Maryland, Chair of the Senate Education, Health and Environment
Committee and Chair of the House Environment and Transportation Committee

*Cover: True Chesapeake Oyster Company's
Patrick Hudson (right) shows MD DNR
Aquaculture and Industry Enhancement unit
Director Karl Roscher (left) equipment used to
produce high quality oysters for sale in the
company's suite of restaurants and raw bars*



Tawes State Office Building
580 Taylor Avenue, B-2
Annapolis, Maryland 21401

TO: The Honorable Lawrence Hogan, Governor
The Honorable Paul Pinsky, Chair, Senate Education, Health and Environmental Affairs
Committee
The Honorable Kumar Barve, Chair, House Environment and Transportation Committee

FROM: William Cox, Chair, Maryland Aquaculture Coordinating Council

DATE: July 1, 2021

SUBJECT: ANNUAL REPORT OF THE AQUACULTURE COORDINATING COUNCIL

I am pleased to present the 2021 report of the Maryland Aquaculture Coordinating Council. The Council provides leadership to develop an aquaculture industry that has brought Maryland national attention and recognition. The dedication of our Council members to this industry continues to identify issues and provide solutions for expansion. We believe aquaculture provides strong benefits for economic growth and expanded employment of our residents, while aiding the environment and providing our state and nation with quality seafood.

The Coordinating Council has carried out many of the tasks assigned to it by the General Assembly when it was created in 2005. We constantly recommend changes to regulations to help the industry rebuild our depleted shellfish resources while creating opportunity for increasing the number of aquaculture businesses to become established and expand. The Council's defined and broad-based membership includes representatives of industry, state agencies, General Assembly, University of Maryland and support organizations that provides a model for progress by working together.

We see opportunities to grow new businesses while encouraging watermen to transition to aquaculture to assure their future. Their abilities are suited to aquaculture production and many have already entered the industry. We look forward to their contributions in expanding production to provide economic opportunities for rural communities and to help improve water quality by creating habitat for healthy Chesapeake and coastal bays.

Challenges remain for aquaculture to reach full potential in Maryland. Therefore, we submit our recommendations for your consideration and look forward to continuing the strong collaboration with our elected leaders that has helped us forge ahead.

The Council will be pleased to provide briefings to you or your members if additional information is needed to develop the recommendations presented in this report. On behalf of the Council, I thank you for the support you have provided to the aquaculture industry, as well your foresight and confidence in creating the Maryland Aquaculture Coordinating Council.

Executive Summary

The Aquaculture Coordinating Council (ACC) was created by the Maryland General Assembly in 2005 and charged with assisting the development of commercial aquafarming by studying and making recommendations on changes required to attract investment and promote economic and employment growth in the industry. The Council provides a forum for state agencies, institutions, non-governmental organizations, political leaders and business leaders to discuss issues while providing strong and diverse expertise to meet its legislative mandate to “advance Maryland aquaculture”.

Support for the development of aquaculture as an economically and environmentally beneficial industry has resulted in over 7,500 acres being placed in active shellfish production. Watermen and entrepreneurs have entered this industry, bringing advances in production, business development and marketing to create new companies and brands, expand sales and generate support industries. This has included equipment fabrication, vessel construction and provision of supplies. Aquafarming businesses have expanded and invested in planting, raising and harvesting millions of shellfish annually.

While shellfish aquaculture remains a principal area of growth for the state, recent interest has been shown by international companies in investing in recirculating system production of salmon. This will increase the availability of this popular seafood while minimizing the carbon footprint that is currently involved when air shipping fish from Europe. With one production facility in design phase for the Eastern Shore, others may be forthcoming and researchers in the University System of Maryland are working on aspects of production to further advance profitable output.

Council members have broad and diverse experience in aquaculture that aids in creating solutions for identified needs. The following issues have been identified as current impediments and must be addressed for continued growth and opportunity for aquaculture in our state. We respectfully submit the following for consideration:

Summary of 2021 Recommendations

I. Water Quality Monitoring: The Maryland Department of Environment (MDE) is responsible for carrying out federal (Title 21 CFR Part 123) and state (Natural Resources Article 4-742 Maryland Annotated Code) laws mandating bacteriological monitoring and investigation into pollution sources to ensure that shellfish are harvested from unpolluted waters. MDE conducts intensive shoreline surveys to identify and mitigate pollution sources that may affect shellfish harvesting waters. Historic expansion of shellfish aquaculture has led to year-round harvest that increased the number of monitoring stations needed to ensure adequate spatial coverage to protect public health. This has increased personnel hours for surveys as well as equipment and operational resources to support monitoring and data collection.

II. Protection of Property: The Natural Resources Police (NRP) provides a strong presence to protect our marine resources. Their efforts to protect natural shellfish stocks and assist private growers to keep crops safe and secure are essential to continued shellfish aquaculture development. Although NRP is not currently operating at its authorized staffing level, the recent graduation of two academy classes has helped to fill existing vacancies. It is critical for the NRP to be able to respond quickly and effectively to aquaculture problems and theft has repeatedly been identified as an issue of concern in industry surveys. Support for NRP assets is required if Maryland is going to meet the challenge of attracting private capital to invest and expand production of aquaculture crops to meet growing demand for quality seafood. The Council has annually urged state leaders to provide additional funds for law enforcement officers to keep a strong and visible force on the waters of the State. We do so again to urge that new assets are provided to this vital force for increased protection of public resources and private property.

III. Aquaculture and Fishery Development Grants: Legislation creating the Aquaculture Coordinating Council provided designated tasks for it to carry out. Item ii directed the Council to *“Establish and monitor a grant program for the implementation of appropriate projects that support the economic health of the State aquaculture industry”*. To date, funds have not been provided for this purpose. With the growth of the aquaculture industry, new equipment and methods have been brought to Maryland to produce quality products with strong growth in recent years. However, those in business are often unable to allocate funds to develop ideas they have for applied research that could result in more efficient gear, higher output, lower input costs and identification and development of new markets. Providing funds for this purpose can keep Maryland producers at the forefront of the industry nationally. Additionally, watermen often have ideas for innovations that can be used by them to aid them in their seafood businesses. We request funds be provided for the Council to develop an Aquaculture and Fisheries Development Grant Program. This would be organized and operated similar to one that has been effective in Virginia for several decades to include commercial fisheries and aquaculture projects. These are overseen by a committee of institutional and industry representatives. Project grant funds would not be allowed to be used for salaries, vehicles or vessels and the project and its results would be required to be documented and made publicly available.



Partners Working Together for Aquaculture Development

Maryland Agencies

Department of Health

Department of Commerce

Department of Agriculture

Department of the Environment

Department of Natural Resources

Natural Resources Police

MD Agriculture & Resource Based Industries Development Corporation

University System of Maryland

University of Maryland

University of Maryland Extension

University of Maryland Center for Environmental Science

Federal Agencies

USDA Natural Resource Conservation Service

US Army Corps of Engineers, Baltimore District

National Oceanic & Atmospheric Administration

Non-Governmental Organizations

Maryland Farm Bureau

Oyster Recovery Partnership



Maryland Aquaculture Coordinating Council

2021 Annual Report

Aquaculture Coordinating Council - Legislative Background

The Aquaculture Coordinating Council was created in 2005, the result of a recommendation by a legislatively mandated Task Force on Seafood and Aquaculture. It has a designated membership that includes Maryland agencies involved in permitting, regulating, policing and advancing the industry. It includes representatives of the University System of Maryland, appointed members of aquaculture and commercial fishing industries, and non-governmental organizations. The Council is charged by the General Assembly with designated tasks to develop all segments of the industry including finfish, shellfish and aquatic plants. Tasks assigned to the Council included:

- *Develop Best Management Practices for aquaculture on or before December 31, 2006;*
- *Investigate and, to extent feasible, enhance the area of State waters available to private lease for aquaculture and the seafood industries;*
- *Support the aquaculture industry in its efforts to implement innovative procedures and to comply with associated regulations;*
- *Provide for the establishment of Aquaculture Enterprise Zones in the Chesapeake and coastal bays;*
- *Formulate and make proposals to the Governor and Senate and House committees responsible for the Environment, for advancing Maryland aquaculture, including recommendations for a fee structure to reduce State expenditures on aquaculture programs;*
- *Establish and monitor a grant program for the implementation of appropriate projects that support the economic health of the State aquaculture industry;*
- *Conduct applied studies of projects and products that will expand the aquaculture industry in the State;*
- *Conduct market tests to determine acceptability and potential demand for new aquaculture products;*
- *Implement pilot projects and small commercial demonstrations to resolve outstanding quality of production issues and to educate industry representatives, regulators, and other partners;*
- *Enhance the awareness of innovative aquaculture products and programs among commercial buyers and the general public; and*
- *Regularly review State regulations impacting aquaculture and make recommendations to the Aquaculture Review Board regarding any necessary or advisable regulatory changes.*

(Ref: Annotated Code of Maryland 4-11A-03.2)

Engaging our Citizens

The Aquaculture Coordinating Council meets bi-monthly with all meetings being broadly advertised and open to the public. Time is provided for public input at regular and workgroup meetings and these procedures assure non-Council member input in proceedings. This outreach has aided attendance, which has increased with regular and broad representation from growers and other stakeholders.

The Council uses its contact with members of the public to identify potential new members who may be interested in serving. Maryland law requires three aquaculture industry representatives and three Tidal Fish License (TFL) holders to be appointed by the Governor to the Council. These members serve staggered terms and may be appointed for two consecutive terms before being required to take at least one year off before becoming eligible for appointment again. Since its formation, the Council has been fortunate to have had superior representation from those in appointed categories, with many being elected to leadership roles. Four members (two in each Industry/TFL category) rotate from the Council annually. Efforts to build a strong aquaculture community have created the opportunity to identify new industry members for Council appointments. Members help identify problems and areas of concern and work to strengthen Maryland aquaculture to create economic growth and employment for our citizens while aiding the environment.

Government Support

Many state and federal agencies support the development and advancement of Maryland aquaculture through their programs and activities. Additionally, non-governmental organizations are heavily engaged in supporting shellfish aquaculture activities due to the strong environmental benefits shellfish production provides to our bays through the biofiltering of the shellfish and other marine organisms present within the reefs and attached to the equipment.

Department of Natural Resources

Aquaculture permitting was consolidated at DNR in 2011 and the Aquaculture and Industry Enhancement Division was established. Staff provides a range of services including: coordination with the US Army Corps of Engineers – Baltimore District for required federal permits; verifying lease operations to ensure the active use required for this public resource; field visits and surveys to assure compliance with environmental regulations; annual billing for lease rental; lease transfers; permitting for importation of shell, larvae and seed from out of state sources; and coordinating legal issues for lease protests with the DNR Attorney General's Office.

Development of the industry has been aided in recent years by construction of two new privately operated oyster hatcheries. These will complement another private hatchery as well as the output from the UMCES Horn Point hatchery near Cambridge, which has been a critical part of building the industry through larvae and seed production as well as research and educational activities that it has provided over the years.

This table illustrates the progress made to increase shellfish aquaculture leasing from September, 2010, when a new leasing program was implemented, through June 2021:

Lease Activity September 2010 - June 2021	Total Lease Sites	Total Acreage
All lease applications submitted	578	11,196
Submerged Land Leases executed	204	5,866
Water Column Leases executed	124	675
All leases executed	328	6,541
Applications currently in process:		
Submerged Land & Water Column Leases	96	1,912

Two types of leases are offered in Maryland. Submerged Land Leases (SLL) operate using traditional spat on shell bottom culture methods although the vast number of these now use hatchery larvae to produce their seed for planting. Water Column Leases (WC), use innovative containment gear such as cages, floats or other gear to raise single oysters principally for restaurants and raw bars. A total of 738 persons are listed as Permittees, that is, they are in charge of lease operation, while 1,440 are Registered as employees for leases. Therefore, the industry has a significant employment effect on the state.

Shellfish Aquaculture Lease Summary

Acreage By County												
Lease Type	AA	CA	CH	DO	KE	QA	SM	SO	TA	WI	WO	Total
B	370.05	142.2	88.6	2,656.7	44.8	20.4	766.33	1,005.8	709.09	1,127.4	15.2	6,946.57
WC	9.2	37.5	7.9	188.55	4.9	3.71	200.71	19.7	40.3	0	52.9	565.37
Total	379.25	179.7	96.5	2,845.3	49.7	24.11	967.04	1,025.5	749.39	1,127.4	68.1	7,511.94

Lease totals By County												
Lease Type	AA	CA	CH	DO	KE	QA	SM	SO	TA	WI	WO	Total
B	24	13	5	88	1	2	80	36	65	47	2	363
WC	3	7	1	27	1	4	32	5	10	0	13	103
Total	27	20	6	115	2	6	112	41	75	47	15	466

Harvest from Leases: The annual harvest from shellfish leases increased significantly during the six years after 2012, when the first products began to be harvested. Annual increases of thirty to fifty percent were seen, with an average during the period of approximately thirty-five percent. However, severe freshets occurred in 2018 and 2019 that caused annual totals to decline. In 2020, the Covid epidemic caused severe national shutdowns of restaurants with impacts throughout the food chain. Harvests during that period dropped due to constriction of consumer demand and shrinking processing. Many growers showed innovation by developing methods of direct marketing to consumers through shipment or sales at farmers markets. While overall harvests were constricted, growers still continued to plant leases and demand for additional acreage was seen throughout this period.

Year	Species	B	WC	Total
2012	Oysters	1,417.20	1,917.40	3,334.60
2013	Oysters	14,965.15	7,231.95	22,197.10
2014	Oysters	17,430.50	16,724.40	34,154.90
2015	Oysters	30,407.50	20,229.03	50,636.53
2016	Oysters	40,195.30	24,414.15	64,609.45
2017	Oysters	43,424.80	29,295.85	72,720.65
2018	Oysters	33,067.40	24,475.45	57,542.85
2019	Oysters	29,849.50	25,053.95	54,903.45
2020	Oysters	28,276.75	18,804.05	47,080.80

Department of Agriculture

The Maryland Department of Agriculture operates the Seafood Marketing unit that helps create demand for our quality products. One of their programs is the “Oyster Pledge” that includes an innovative logo to help boost sales. Restauranters can sign the pledge to become listed on the MDA website as a participant and the website notes the significant environmental benefits that accrue from consuming oysters. An innovative map of Maryland can be accessed that has locations of restaurants and growers with their location, owner and contact information.



Department of the Environment

The Maryland Department of the Environment is charged with regulating shellfish harvesting water by identifying and eliminating pollution sources, collecting water samples across wide geographic areas for bacteriological examination and examining shellstock samples for potential bacteriological contamination and chemical toxicants. Sanitary surveys ensure waters used to raise shellfish are properly classified and regulated and their field crews maintain constant vigilance through monitoring water quality and classifying areas. These are posted on the Shellfish Harvesting and Closure Area Maps on their website for access by the public.

Field crews also monitor specific waters when shellfish lease applications are filed for locations near to shorelines. MDE employees are engaged with counterparts through the nation in the National Shellfish Sanitation Program which develops regulations to ensure that only safe products reach consumers.

Department of Health

The Maryland Department of Health is engaged in inspecting food handling and processing facilities. They are an integral part of the National Shellfish Sanitation Program that is recognized by the US Food and Drug Administration and the Interstate Shellfish Sanitation Conference for the sanitary control of shellfish produced and sold for human consumption and to improve sanitation of shellfish moved in interstate commerce. A person wanting to sell shellfish direct to consumers, whether home delivery, farmers markets or other, must be trained in the proper procedures to include Hazard Analysis Critical Control Point (HACCP) methods as well as recordkeeping requirements to receive a Shellfish Shipper license. Training for this is offered at least annually in partnership with University of Maryland Extension specialists and DOH personnel also provide inspection of processing facilities on a regular basis to assure that only safe and quality shellfish are sold from Maryland producers.

Maryland Agriculture and Resource Based Industries Development Corporation

Since the creation of the Maryland Shellfish Aquaculture Financing Fund in 2011, MARBIDCO has approved 83 loans to 50 borrowers totaling \$5,187,098, for projects located in 10 tidewater counties. 31 were for Submerged Land Leases, 44 for Water Column (cage or float) Leases, and eight were a combination of both bottom and water column projects. Sixty-eight loans were made to commercial watermen (TFL holders) and seventy-six loans are fully drawn. Borrowers in good standing have an opportunity for forgiveness of 40% (up to maximum of \$100,000) or 25% (\$100,000 to \$300,000) of the loan principal balance amount.

In 2012, a special finance program was established for commercial watermen to develop remote setting systems to produce seed oysters. MARBIDCO has approved three loans in this program totaling \$89,983, with all being fully drawn. Growers who have taken advantage of this program have not only used the systems to produce seed oysters for their leased grounds but have sold spat on shell to the state for placement on public harvest grounds to keep that important part of the oyster industry viable.

USDA, Natural Resources Conservation Service

The Natural Resources Conservation Service has developed the Environmental Quality Incentives Program (EQIP). It is a voluntary program that helps agricultural producers promote wise production practices while aiding the environment. Financial and technical assistance allows farmers to implement structural and management practices that optimize environmental benefits on working farmland, which includes underwater farms using aquaculture production. The program has been operating for many years in Maryland to provide grants to oyster growers using

bottom culture methods for developing aquatic habitat. Funds are used to renovate existing bottom substrate or emplace new substrate which is then planted with hatchery produced spat on shell to emulate a natural oyster reef. These reefs provide benefits from the biofiltering of the bivalves as well as the habitat that attracts many other beneficial species. The program has been effective in Maryland and led to many acres in the Bay being successfully developed into working oyster ground and recognizes the importance of these areas for environmental improvement of our waters.

The Nature Conservancy – Shellfish Oyster Aquaculture Recovery (SOAR)

During the past year, the Covid virus caused significant problems in the United States and world for many businesses. With human contact restricted, restaurants and other businesses closed and markets for food products were greatly affected. The aquaculture industry felt this and Maryland shellfish farmers were greatly affected. During the fall of 2020, The Nature Conservancy and Pew Charitable Trusts offered funds to purchase oysters from shellfish growers to place in sanctuaries. This provided cash flow to growers and used the animals for environmental benefits of nutrient cycling and providing habitat for other species. The Maryland program was developed with TNC in cooperation with DNR and UMD Extension to engage interested growers. The program had two rounds with Maryland one of seven states included in the program. In Round One, 857,851 oysters were purchased while Round Two purchased 399,993 oysters, for a total of 1,257,844 oysters. These were placed on 17 acres of sanctuaries in St. Mary's, Eastern Bay and the Nanticoke. Several growers stated that these funds allowed them to keep employees paid during the past year while traditional oyster markets were depressed.

Workforce Education and Training

University of Maryland Extension (UME) provides continuing education aimed at agriculture and rural life. Profitable success in aquaculture requires developing skills in business and production methods. UME provides training through workshops, demonstrations and short courses with notification to leaseholders and posts to web and Facebook pages. Support materials include technical manuals and spreadsheets in print and electronic forms. The UMCES Horn Point oyster hatchery participates by producing larvae and seed to support industry expansion.

A Remote Setting Training program has equipment placed around the Bay for growers to learn to produce spat on shell seed oysters for planting bottom leases to comply with the "active use" requirement for lease retention. The program normally services 45 growers annually who produce spat in over 200 sets. Once trained, participants construct their own systems based on lease size and planting requirements.

Programs are offered in *Production Methods*, *Business Management* and *Seafood Technology*. Fifteen to over twenty programs are normally conducted annually, although the Covid shutdown prevented this in 2020. A demonstration oyster farm conducts research on culture equipment at Horn Point and workshops provide training in contained gear systems.

Research for Future Development

The University of Maryland College of Engineering obtained a five year, \$10 million project from the US Department of Agriculture in 2020 to fund research into advanced technology and robotics for bottom cultivation of oysters. The project will tie growers in all coastal areas in an advisory board to focus the research on production methods and conduct implementation studies in a variety of coastal environments. The vision for the project is to develop technology that will move the industry into the twenty-first century with parallels to modern terrestrial agriculture. Initial studies focus on planting ground assessment and inventory monitoring, with future development of better harvest methods, mechanized processing and added-value products to reach large-scale markets.

Issues and Recommendations

The Aquaculture Coordinating Council has identified key issues affecting the advancement of Maryland aquaculture and provides recommendations developed through their meetings. For 2021, the Council respectfully submits the following for consideration:

I. Water Quality Monitoring

Issue: The Maryland Department of Environment (MDE) is responsible for carrying out federal (Title 21 CFR Part 123) and state (Natural Resources Article 4-742 Maryland Annotated Code) mandating bacteriological monitoring and investigation into pollution sources to ensure that shellfish are harvested from unpolluted waters. In addition, MDE conducts intensive shoreline surveys to identify and mitigate pollution sources that may impact shellfish harvesting waters. Continued expansion of the oyster aquaculture industry has resulted in year-round oyster harvest that can increase the number of monitoring stations needed to ensure adequate spatial coverage to protect public health. This has also increased personnel hours for shoreline surveys, and equipment and operational resource needs to support their monitoring and data collection.

MDE's Compliance Division tracks the hours devoted to aquaculture. These have risen in recent years due to the addition of thirteen new monitoring stations specifically for aquaculture, which is an increase of six stations from those that previously existed. Many of the recent aquaculture sites have been bottom leases further offshore and in deeper waters already covered by existing shellfish monitoring stations. As a result and at this time, staff have not had to establish as many of the near shore monitoring stations we had to in the past, which has eased some increased staffing needs. The critical need at this time is replacement of an aging vessel that is at the end of its serviceable life where making needed repairs is no longer cost-effective relative to replacement.

Federal funds may materialize in upcoming Congressional budget deliberations, but it is too early to say at this time. While oversight is from the US Food and Drug Administration (FDA), no funding has been provided for meeting these requirements. Over time, limited EPA funding has supported field monitoring programs because of water quality and public health obligations required under the federal Clean Water Act.

Recommendation: Secure \$125,000 in additional state funds for MDE shellfish programs, particularly for a replacement vessel in this fiscal year, and continue to track federal funding to ensure fiscal gaps are addressed. These programs have been effective in assuring that Maryland's shellfish industry remains competitive nationally while maintaining its excellent reputation for safe and wholesome products. It is critical for Maryland's economic and public health needs to support MDE shellfish monitoring programs.

II. Protection of Property

Issue: The Natural Resources Police (NRP) provides a strong presence to protect our marine resources. Their efforts to protect natural shellfish stocks and assist private growers to keep crops safe and secure are essential to continued shellfish aquaculture development. Although NRP is not currently operating at its authorized staffing level, the recent graduation of two academy classes has helped to fill existing vacancies.

It is critical for the NRP to be able to respond quickly and effectively to aquaculture problems and theft has repeatedly been identified as an issue of concern in industry surveys. Support for NRP assets is required if Maryland is going to meet the challenge of attracting private capital to invest and expand production of aquaculture crops to meet growing demand for quality seafood. The Council has annually urged state leaders to provide additional funds for law enforcement officers to keep a strong and visible force on the waters of the State. We do so again to urge that new assets are provided to this vital force for increased protection of public resources and private property.

Recommendation: Increase support for Natural Resources Police to deter theft of public and private shellfish stocks by providing the force with expanded personnel and funds for enhanced technological equipment that can multiply the efforts of duty personnel for enforcement activities. Funding should be allocated to support the training and hiring of new officers, the expansion of Maryland Law enforcement Information Network (MLEIN) and the aviation unit which are all essential tools needed for effective surveillance, patrols and enforcement actions which will help to protect investments in shellfish aquaculture by leaseholders.

III. Aquaculture and Fisheries Resource Grant Program

Issue: Legislation creating the Aquaculture Coordinating Council provided a series of charges for it. Item ii directed the Council to “*Establish and monitor a grant program for the implementation of appropriate projects that support the economic health of the State aquaculture industry*”. To date, this important charge has not been implemented because funds have not been provided. With the growth of shellfish aquaculture, new equipment and methods must be introduced to produce quality products. However, those in business are often unable to allocate funds to develop innovative ideas for applied research that could result in more efficient gear, higher production, lower input costs and identification of new markets. Providing funds for this purpose will keep Maryland producers at the forefront of the industry nationally. Virginia operates a program that provides a strong model for Maryland, with grants to both commercial fisheries and aquaculture to develop new and innovative ideas. Results must be made available to the public for others to utilize them.

Recommendation: The Council’s vision is for an Aquaculture and Fisheries Innovation Fund to be established at \$100,000 annually and overseen by an Advisory Board comprised of seven

individuals representing state agencies, University of Maryland and industry. Growers would be required to be actively engaged in the Maryland wild harvest of aquaculture industries. Growers would submit proposals to the Board at specified times during the year. Funds would not be allowed for the purchase of vessels, vehicles or payment of salaries. The intent of the program is for those in production to pursue improvements in operations without having to incur cost and risk during development. The program would fund supplies or develop equipment and provide support for innovative products or methods used for aquaculture and commercial fishing products.

Proposals would be reviewed by the Advisory Board with external reviews requested, if required, for additional input. At the conclusion of a project, a report would be required from the recipient which would be in the public domain for information transfer to other users. Participants would be encouraged to provide information on their projects through UMD Extension programs.

To create this important program, the Governor and legislature are requested to provide \$100,000 for development of this program. The Council envisions being able to form the Advisory Committee and have the program active within six months of the allocation.

The Council requests respective state agencies consider the recommendations in this report when formulating budget requests and urges the Governor and General Assembly to support them. The Council looks forward to continuing the development of Maryland aquaculture for **ECONOMIC GROWTH, INCREASED EMPLOYMENT** and the **ENVIRONMENTAL BENEFITS** that derive from a healthy and thriving aquaculture industry.





MEMBERS OF THE AQUACULTURE COORDINATING COUNCIL

Mr. William Cox, Chair, Honga Oyster Company, Industry
Mr. Donald Webster, Vice-chair, University of Maryland Extension
Senator Katherine Klausmeier, Maryland Senate
Delegate Johnny Mautz, Maryland House of Delegates
Mr. J.D. Blackwell, 38° North LLC, Industry
Mr. Eric Wisner, Wisner Oysters, Industry
Mr. Robert "Moochie" Gilmer, TFL
Mr. Robert Witt, TFL
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Dr. Reginal Harrell, University of Maryland
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Mr. Kris Schock, Maryland Department of Commerce
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