MICHIGAN FARM BUREAU®
7373 West Saginaw Highway, Box 30960, Lansing, Michigan 48909-8460
Phone (517) 323-7000

To: Honorable Members of the House Natural Resources Committee

Re: Opposition to HB 5255

As you know, Michigan Farm Bureau is a grass roots based organization representing over 45,000 farm families across the State of Michigan. It is farmer members who, surface, debate and adopt our policy positons.

Farm Bureau policy opposes HB 5255 which would ban net pen aquaculture in the Great Lakes and certain tributaries. MFB policy states, "We support enabling legislation and/or the regulatory framework to allow for the development of a property regulated open water net pen aquaculture in the Great Lakes and other water bodies." The state's regulating agencies - DNR, MDARD, and DEQ - have adopted a policy following what they report is an Attorney General Opinion, saying state statute does not allow them to issue a permit for aquaculture in the Great Lakes because the Great Lakes are not privately owned. While this legal question is still at issue, legislation banning aquaculture in the Great Lakes would deprive entrepreneurs of any opportunity to develop a regulatory framework that will allow aquaculture to expand while protecting vital natural resources.

Aquaculture is part of the agriculture industry. As with all animal farming issues, proper regulatory oversight and Best Management Practices or Generally Accepted Agriculture Management Practices (GAAMPs) are key to ensuring that everything from escapes and disease management protocols, to nutrient management practices and biosecurity measures, are all addressed in a thoughtful and proactive manner. By applying these methods, we believe that aquaculture can be conducted safely within the Great Lakes and as such ask for a regulatory structure to be put into place rather than ban this economic opportunity.

Economics

The global demand for seafood continues to grow. In the US, we have a billion dollar deficit of seafood. Surrounded by 20% of the worlds' surface fresh water, Michigan is positioned to create a billion dollar seafood sector. This is huge growth potential in economics and jobs for an industry currently at $5 million in the state. According to Sea Grant, half of the world's meat protein source is seafood. A growing global population projected to reach 9 billion means doubling global food production and quadrupling protein production. Under such demand, fish have a highly efficient feed conversion rate of 1.5:1, meaning a pound of fish protein requires only one and a half pounds of feed. Fish are an ideal source of food for growing global demand,

and aquaculture is a safe way to harvest this protein source without further depleting the globe's disappearing wild fish populations.

Michigan has the right mix of skilled workers, with fisheries biologists that are among some of the best in the world and top notch engineers to help us design the most efficient aquaculture systems for the unique characteristics of the Great Lakes. With help from our knowledgeable scientific community and using examples of successful aquaculture operations already existing, our state has the ability to develop net pen aquaculture in the Great Lakes that is safe, protective of the environment, and which provides economic opportunity and healthy locally grown food.

Scientific Report

In October 2015, a Task Force charged with examining feasibility and challenges with net pen aquaculture in the Great Lakes issued a report on the science and regulation of the industry (available here: http://www.michigan.gov/documents/mdard/AquaRprt_504335_7.pdf). The Task Force was made up of scientists from the National Oceanic and Atmospheric Administration, Great Lakes Fishery Commission, University of Michigan, and the Ohio State University, a civil engineer, and a veterinarian with the United States Department of Agriculture National Animal Health Response Corps. They reviewed ecological issues surrounding questions of net pen operation, siting, fish health, and ecosystem interactions including effluents.

Overall the Task Force recommended developing net pen aquaculture with an adaptive management approach, with before- and after-impact studies to fill knowledge gaps about practices that can maximize production and fish health while minimizing environmental impact. They described successful operations planning not only siting to protect against weather such as storms or ice and commercial/recreational traffic, but also to plan for decommissioning if an operation shuts down or suffers loss of stock from an extreme event. The Task Force examined net pen operations permitted in Ontario's Lake Huron waters (described below) for examples of best management practices. They also provided recommendations for feeding to minimize waste, decrease phosphorus in effluent, and locating operations in areas where nutrients added to the local system will not contribute to excess nutrient loading.

The Task Force further recommended preventative practices to ensure fish health and minimize disease threat, along with developing response procedures to treat diseases if they occur. Such biosecurity plans and work with veterinary professionals are part of successful aquaculture operations and would therefore be an important part of any net pen operation in the Great Lakes. Avoiding sensitive habitats, using net pen maintenance to prevent colonization by invasive and nuisance species, and implementing structures to prevent bird and predator interactions are also included in recommended practices. One primary conclusion the Task Force developed was the importance of following state and federal regulations on aquaculture operations, water quality and endangered species protection. These recommendations call for diligence, best management practices, scientific observation, and adaptive management, and

most importantly conclude that net pen operations *are* feasible for Michigan Great Lakes waters if they have proper oversight, which the aquaculture industry and Michigan Farm Bureau support.

NPDES Permits

In the regulatory framework that governs aquaculture operations (summarized by the Michigan Quality of Life Agencies Regulatory Analysis here: http://www.michigan.gov/documents/mdard/NetPenRegRev_504302_7.pdf), one key method to protect environmental health is permitting through the National Pollution Discharge Elimination System (NPDES). NPDES falls under Section 402 of the Clean Water Act, 33 U.S.C. §1251 et seq. (1972), and is administered in Michigan through Part 31 of the Natural Resource and Environmental Protection Act (NREPA), 1994 PA 451. Any aquaculture facility growing more than 20,000 pounds of fish or feeding more than 5,000 pounds of food in a month must obtain an NPDES permit and adhere to its limits. Permits control the discharge of materials that might affect water quality, such as suspended solids, nutrients, antibiotics or other drugs, as well as conditions that might impact environmental quality such as water temperature and dissolved oxygen content. The NPDES program in Michigan also directs aquaculture facilities to develop operation plans identifying the best management practices they will use to comply with permit requirements. Michigan Farm Bureau and the aquaculture industry support proper regulation of net pen operations to protect environmental quality.

Fish Health and Disease Prevention

As discussed in the scientific report above and supported by Michigan Farm Bureau and the aquaculture industry, maintaining fish health, preventing and addressing disease are also important components of a successful net pen operation in the Great Lakes. Michigan's regulatory system for overseeing these needs falls within Part 487 of NREPA, the Michigan Aquaculture Development Act, 1996 PA 199, and the Animal Industry Act, 1988 PA 466. These regulations dictate that animals stocked aquaculture operations need to be certified disease-free, have a veterinary certificate of health, be of a listed allowed species in Michigan, and if certain diseases occur within the operation, they must be reported to the Michigan Department of Agriculture and Rural Development and control procedures implemented. Part of a successful net pen operation is close partnership with veterinary professionals, best management practices to prevent and control diseases, and compliance with species restrictions to minimize risk to habitats and natural populations.

Successful Canadian Operations

In addition to net pen aquaculture that has operated for many years in marine environments including coastal Maine and Washington, net pens have operated under permit in Ontario's waters of Lake Huron since 1988 (see the Task Force report and Quality of Life Agencies Regulatory Analysis cited above). Seven commercial and three tribal sites currently operate in Lake Huron. Learning through their experience and addressing past issues with net pen

operations, Ontario's regulatory agencies now oversee permit requirements on feed amount and quality, water quality standards and protection, sediment monitoring, and medications. Similar to Michigan's NPDES program, they reissue permits every five years to help ensure and update needs for compliance with environmental protection. These operations demonstrate that a carefully managed and regulated net pen system is feasible in the Great Lakes while minimizing risks to the environment, habitats, or native species. An overview of Ontario's net pen industry as well as opportunity for net pen development in the Great Lakes is available through a video series located here: https://vimeopro.com/fbvideo/advancing-the-great-lakes-aquaculture-opportunity.

Conclusion

Farm Bureau members have always called for sound science to be used in place of emotions. The recent advisory report issued by an independent, unbiased task force of experts used science and came to the conclusion that aquaculture could be developed in the Great Lakes, if caution is used when setting protocols in place. Farm Bureau policy supports this notion and asks you to vote no on HB 5255 so that productive conversations about promoting aquaculture within Michigan and the Great Lakes can be explored.