Alaska Mariculture Task Force
Recommendations for Mariculture Development in Alaska
June 8, 2017 – WORKING DRAFT

[*NOTE: The following is a working draft of a coordinated response on behalf of the Alaska Mariculture Task Force in response to recent increased interest by Congress, NOAA and other federal entities in expediting mariculture in the U.S. as part of a strategy to decrease the seafood trade deficit*.]

Introduction to the Alaska Mariculture Task Force:

At the request of industry and communities, Governor Bill Walker established the Alaska Mariculture Task Force (Task Force) on February 26, 2016 by Administrative Order #280. The Governor directed the Task Force to develop recommendations for the development of a viable and sustainable mariculture industry producing shellfish and aquatic plants for the long-term benefit of Alaska's economy, environment, and communities. The AO lays out guiding principles and essential elements of a comprehensive plan towards this goal which is to be completed by March 1, 2018.

Guiding Principles:

The Task Force is directed to use the following guiding principles in the development of its recommendations:

1) mariculture is defined as enhancement of wild fisheries and aquatic farming of shellfish and aquatic plants. Mariculture does not include finfish farming, which is prohibited in Alaska by law.
2) the development of the mariculture industry will
    a. be compatible with Alaska's reputation as a world leader in responsible and sustainable management of its seafood resources;
    b. be stakeholder-driven;
    c. coordinate and integrate with those entities conducting ocean monitoring in order to inform research and management of changing ocean conditions;
    d. include analysis of successful models that may be applicable to Alaska.
3) The comprehensive recommendations of the task force shall address, at a minimum
    a. public and private investment;
    b. regulatory issues;
    c. research and development needs;
    d. environmental changes;
    e. public education; and
    f. workforce development
4) The task force may establish advisory committees to assist in addressing the previously stated essential elements of the recommendations.

Although the comprehensive planning process is not complete yet, the Task Force has identified the following findings and recommendations.

General Findings and Recommendations:

When considering a Federal Aquaculture Initiative, the Task Force recommends that NOAA and other federal agencies take a regional approach which recognizes the various differences in state initiatives and priorities.

Alaska has over 30,000 miles of coast, which is more than all of the other states combined. All development to date has occurred in nearshore/state waters (0-3 miles). Economic challenges, concern for interaction with wild fisheries, in combination with tremendous nearshore waters potential, make offshore/federal waters development less likely in Alaska in the short and mid-term.

The existing industry produces approximately $1 million in sales annually. However, Alaska is seeing recent tangible signs of increased interest (see attached summary of farm applications in 2017). If the farm applications submitted in 2017 are approved it will quadruple the number of acres farmed in Alaska in one year.

A need exists to balance and encourage future small, medium and large business development in order to have a stable foundation which will support the infrastructure required to thrive.

Significant support for mariculture development has come from NOAA through the Alaska Sea Grant program as well as Saltonstall-Kennedy funds received by AFDF in 2014for the Alaska Mariculture Initiative. Increased capacity is necessary to fully realize and expedite mariculture development in Alaska. Initially, resources are needed to complete the planning process, which has increased in size and scope since NOAA's initial grant funding was received for the Alaska Mariculture Initiative.

After completion of the comprehensive plan, resources will be needed to support the implementation of the plan in the mid-term. The Task Force requests NOAA support implementation of Alaska's comprehensive plan in areas where federal and state interests are aligned.

A lead organization will need to be identified/created in order to coordinate and organize implementation of the statewide comprehensive plan. Industry needs to be in a leadership role. Coordination with federal agencies would be enhanced through the utilization of a NOAA aquaculture coordination in the Alaska region [Note: all other regions have an existing aquaculture coordinator]. Alaska also needs to replace the Aquaculture Extension Agent within Alaska Sea Grant. [Note: Alaska Sea Grant has submitted three small and one larger project proposals for funding from the national Sea Grant office.]

Alignment of Federal agency programs and proactive identification of funding programs that match with needs identified in the comprehensive plan will help encourage and support mariculture development (e.g. USDA, NOAA (Sea Grant, SK grants, Office of Aquaculture), EDA, NSF, DOL, etc).

Investment and Infrastructure:

Shellfish and seaweed hatcheries are a critical piece of infrastructure necessary for the industry to grow. The financial support of these operations, however, is difficult during this

developmental stage. Industry in Alaska is too small to financially support these operations entirely through seed sales, yet expansion of the industry is entirely dependent upon secure seed production. Short-term financial support will stabilize operations, provide seed security, and break the chicken-or-egg stage which will allow the industry to grow.

Development of an interactive GIS mapping tool which layers relevant existing oceanographic, satellite, and social data and allows users to analyze new sites for productivity, conflicting uses, and efficiency would help reduce risks for new businesses to enter mariculture.

Public Education & Marketing:

As interest increases in mariculture, more and larger aquatic farm applications will be submitted to regulatory agencies (see attached summary from 2017). Public education and outreach efforts are critical to increasing public acceptance of new sites. Using a variety of factual sources, supportive stakeholder groups, and expert presenters will increase acceptance of facts.

Additional investment in expansion of marketing programs for new species will be required to build on Alaska's inherent brand value and effective public-private partnership (the Alaska Seafood Marketing Institute) in order to generate the price premiums necessary to overcome higher costs of farming in Alaska and moving product to market. ASMI will also need to consider how to alter messaging to incorporate the Alaska-grown theme of these new products.

Regulatory:

In some ways, Alaska's regulatory environment for aquatic farm permitting is less onerous than other regions in the U.S. However, challenges have still been indentified in Alaska that can be addressed over time in order to improve the regulatory environment. For example, a state law is required in order to provide statutory authority to ADF&G to allow for shellfish fishery enhancement. Additional water quality data is required relative to fecal coliform during high rainfall in order to allow ADEC regulators to consider alteration of its related policies. Genetic information on seaweed stocks is key to broad growth of that species for commercial production.

Federal agencies which are required to be consulted on specific topics (e.g. ESA, etc) during Alaska's near-shore permitting process need adequate support to respond in a efficient and proactive review process.

Research, Development & Environmental Information:

R & D needs vary depending primarily by species. The following species are under some stage of R&D in Alaska: Pacific oysters, blue mussels, seaweeds (sugar, ribbon and bull kelp), blue and red king crab, sea cucumber, geoduck, razor clam, and abalone.

NOAA is currently working in partnership with private industry on a small scale to support these research needs through Cooperative Research And Development Agreements (CRADA). These types of partnerships can be expanded in the future to meet some of the near-term R&D needs of the industry. National Sea Grant funds are contributing to seaweed genetic and seeding processes research.

Workforce Development:

Flexible training workshops and short courses for hatchery, nursery and aquatic farm workers are critical to growing a workforce in coastal Alaska with the skills necessary for a competitive industry. A number of entities are well-positioned to play a role in either demonstration farms or classrooms (Alaska Sea Grant, private non-profit hatchery facilities, tribal entities and public or private demonstration farms).