

Representative Dan Ortiz  
Alaska State Legislature  
State Capitol Room 513  
Juneau, AK 99801  
[Rep.Dan.Ortiz@akleg.gov](mailto:Rep.Dan.Ortiz@akleg.gov)



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## Re: Support for HB 41 – shellfish enhancement

Dear Representative Ortiz,

March 15, 2019

The Alaska Fisheries Development Foundation (AFDF) would like to express support for HB 41 which creates a framework to manage and develop shellfish fishery enhancement and will benefit the state's economy by providing a method to increase the available harvest of shellfish for public use in an environmentally safe manner.

AFDF's membership is comprised of seafood harvesters, seafood processors, and support sector businesses. Founded in 1978, AFDF's mission is *to identify opportunities common to the Alaska seafood industry and develop efficient, sustainable outcomes that provide benefits to the economy, environment and communities.*

One of AFDF's recent areas of work is spearheading the *Alaska Mariculture Initiative*, which is meant to expedite the development of mariculture in Alaska with the vision to grow a \$1 billion industry in 30 years. Many organizations across the state have endorsed this initiative (i.e. Alaska Chamber, Alaska Shellfish Growers Association, Southeast Conference, SE AK Regional Dive Fisheries Association, Southwest Alaska Municipal Conference, United Fishermen of Alaska, and others).

As a direct result of this initiative, the ***Alaska Mariculture Task Force*** was established in 2016. The Task Force completed a statewide comprehensive plan in 2018 called the [Alaska Mariculture Development Plan](#) with the goal of growing a \$100 million industry in 20 years.

***HB 41 plays an important role in the development of mariculture in Alaska and is one of the priority recommendations in the comprehensive plan.*** HB 41 creates a regulatory framework with which Alaska Department of Fish & Game's (ADF&G) can manage shellfish fishery enhancement and restoration. This will allow interested stakeholders to either continue or begin enhancement and/or restoration efforts of species such as King crab, sea cucumber, geoduck, abalone, scallops or razor clams. Without this

regulatory framework, shellfish enhancement is NOT allowed in Alaska, and development progress is halted.

I would like to briefly address concerns of the potential for negative impacts to wild shellfish from hatchery shellfish. AFDF is the Client for seafood sustainability certification programs such as the Marine Stewardship Council (MSC) and the Alaska Responsible Fisheries Management (RFM) program. As the Client and facilitator for these certification programs, AFDF has a unique viewpoint on this issue. As a part of these certifications, the ADF&G management of the salmon fishery (including salmon enhancement) is reviewed every year by independent third-party experts to determine whether it meets internationally accepted standards for sustainably managed fisheries. ***Alaska salmon is currently certified as sustainable under for the Alaska RFM and MSC programs, because ADF&G's management incorporates a precautionary approach that prioritizes wild fish and minimizes adverse impacts to wild stocks.*** ADF&G has extensive enhancement policies which protect wild stocks (e.g. genetics, marking, and disease). Given these policies, independent third-party experts have confidence that ADF&G is fulfilling its constitutional mandate to manage the State's fishery resources for sustainability. ***AFDF is confident that ADF&G will manage shellfish enhancement with the same priority to wild stocks, therefore, AFDF supports SB22 which will give ADF&G the authority and regulatory framework to manage shellfish enhancement.***

***Another benefit of developing shellfish fishery enhancement is the important role that shellfish hatcheries can play in adapting to ocean changes and acidification.*** As we develop shellfish hatcheries and techniques, we also learn more about the effects of ocean acidification and our abilities to mitigate these effects in a hatchery setting (e.g. adjusting pH levels at critical juvenile stages to improve survival). Shellfish hatcheries can play a critical role in the future and position Alaska to better protect its wild stocks.

***Shellfish enhancement can diversify and expand economic opportunities by increasing opportunity to harvest shellfish for sport, subsistence, or commercial use.*** For example, during the years 2012-2017, salmon enhancement contributed approximately \$720 million in ex-vessel value and \$2.1 billion in first wholesale value to the state's economy. Similarly, shellfish enhancement could infuse the economies of Alaska communities once fully developed.

If there are any questions, I am happy to answer them. Thank you for your consideration and support of this bill.

Sincerely,



Julie Decker, Executive Director

Cc: Liz Harpold, Staff for Representative Dan Ortiz

Attached: ***Alaska Mariculture Development Plan – In Brief***

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*[www.afdf.org](http://www.afdf.org)*

IN BRIEF

# Alaska Mariculture Development Plan

2018



*"Aquatic plants and shellfish present a significant and sustainable economic opportunity for coastal Alaska communities....I support this comprehensive plan and commit the State of Alaska to work in partnership with stakeholders and agencies toward its implementation."*

—Governor Bill Walker

*"This plan is intended to increase profitability, expand participation, and provide coordination....the Task Force members remain committed and are enthusiastic about expanding Alaska's mariculture industry."*

—Alaska Mariculture Task Force



## What is Mariculture?

Enhancement, restoration, and farming of shellfish (marine invertebrates) and seaweeds (macroalgae). Finfish farming is not legal in Alaska waters, and therefore, it is not considered in this report.

## Why Mariculture?

### **Economic Benefits**

- 🌀 Adds jobs in primary, secondary, and support sectors.
- 🌀 Adds money and commerce flowing through coastal communities.
- 🌀 Increases trade domestically and internationally.

### **Environmental Benefits**

- 🌀 Shellfish filter and clean the water allowing light to penetrate.
- 🌀 Shellfish and seaweed remove excess nutrients.
- 🌀 Shellfish and seaweed provide essential habitat and support diverse ecosystems.
- 🌀 Shellfish and seaweed help mitigate ocean acidification in local waters.

### **Cultural Benefits**

- 🌀 Complements existing traditions and customs in coastal communities.
- 🌀 Complements existing skill sets.

This synopsis of the 2018 Alaska Mariculture Development Plan presents results of a two-year planning process by the Governor's Mariculture Task Force (MTF).

The MTF, including advisory committees, held public meetings, conducted outreach, and completed an economic analysis as part of the planning process. The economic analysis included case studies of successful mariculture industries, an economic framework for developing the Alaska mariculture industry, and a cost/benefit analysis of the economic impacts of mariculture industry development.



## Vision

Develop a viable and sustainable mariculture industry producing shellfish and aquatic plants for the long-term benefit of Alaska's economy, environment, and communities.

## Goal

Grow a \$100 million mariculture industry in 20 years.

## Guiding Principles

### **Coordination and Leadership**

Effective implementation of this comprehensive plan requires coordination and commitment of time and resources from local, state, federal and tribal governments, industry, communities, the University, and other interested stakeholders.

### **Sustainability**

Development of mariculture will be compatible with sustainability principles to maintain and improve environmental integrity, as required by the Alaska Constitution and ADF&G management practices.

### **Alaska Native Participation**

Mariculture development will benefit from the involvement of Alaska Natives in every element of the process.

### **Innovation**

Alaska presents many unique challenges, and developers will look globally to applicable research and solutions to apply to Alaska's circumstances and geography.

### **Compatibility**

Implementation of this plan must protect existing marine uses, such as subsistence, commercial fishing, and recreation. It will also utilize Alaska assets and infrastructure.





# MADE IN ALASKA MARICULTURE

## PATHWAY TO A VIABLE AND SUSTAINABLE INDUSTRY

Priority Recommendations Highlighted in Red

### Secure and Promote Investment In Mariculture

- Increase the Mariculture Revolving Loan Fund principal as utilization increases.
- Secure private investment.
- Coordinate federal and state funding sources.
- Fund business planning, start-ups, and structures.
- Leverage utilization of existing coastal infrastructure.
- Develop a web-based mapping tool.
- Encourage financial support for State agencies to properly manage and timely process farm applications.
- Develop options for self-assessments, taxation, or other fee mechanisms to support growth.

### Establish an Alaska Mariculture Development Council (AMDC)

- **Extend the MTF and its advisory committees for three years, with a new directive to begin implementation of the comprehensive plan and creation of the AMDC.**

### Maximize Innovation and Growth Through Research

- **Establish a Mariculture Research Center to address research priorities and continually update needs.**
- **Fill the UAF Alaska Sea Grant Mariculture Specialist position.**
- **Fill the Alaska Region NOAA Aquaculture Coordinator position.**

### Develop New Mariculture Markets and Products

- Coordinate mariculture marketing through trade associations and consider joining with ASMI through self-assessment.
- Encourage ASMI to expand marketing to include mariculture products.
- Engage in product form research and development and market research.
- Support economic data collection and research.

### Build Public Understanding and Support for Mariculture

- Inform about maintaining existing uses, preserving the environment, preventing genetic issues, and avoiding market competition with wild-caught seafood.
- Conduct public outreach to multiple audiences.
- Identify and communicate with all community stakeholders early in the process.
- Coordinate information and advocacy through a central body.

### Promote Success Through Alaska Native Participation

- Conduct outreach to Alaska Native organizations related to mariculture opportunities and relevant technical and financial support.
- Seek tribal engagement through local outreach during the farm permitting process.
- Develop collaborative workforce development programs between tribes, Alaska Native Corporations, industry, and other relevant partners.
- Integrate mariculture topics and studies in relevant educational programs.

### Align Laws, Regulations, and Agency Practices with Stakeholder Needs

- **Allow restoration, rehabilitation, and enhancement of shellfish stocks.**
- Create a single point of contact for permitting processes.
- Modify farm site lease requirements, including bonding requirements, lease fee structures, risk reduction, and best practices.
- Provide resources necessary to ADEC.
- Pursue clarification of regulations.

### Secure Seed Supply Through Shellfish and Seaweed Hatcheries

- **Fund hatchery operating costs until the industry is self-sustaining.**
- Develop long-term funding options to support hatchery production.
- **Allow and encourage shellfish and seaweed hatcheries to utilize the Mariculture Revolving Loan Fund.**
- Provide technical assistance to existing and new hatcheries.

### Grow and Develop the Mariculture Workforce

- Provide mariculture skill-building resources and professional development opportunities to growers, available both remotely and in-person.
- Offer an "Introduction to Shellfish/Seaweed Farming" boot camp.
- Utilize the University of Alaska's Sea Grant Mariculture Specialist position.
- Develop a mariculture apprenticeship/mentorship program.
- Participate in industry career awareness activities.
- Evaluate and track participant progress and include mariculture workforce impacts in economic and employment analyses.

'Made in Alaska Mariculture' graphic provided by Alaska Department of Commerce, Division of Economic Development and artist Craig Updegrave.

## \$100 Million Alaska Mariculture Industry in 20 Years

### Long-Range (20-Year) Annual Production Goals

45 million	Pacific oysters (count)
500,000	Geoducks (count)
48 million	Kelp (lbs.—wet)
1.8 million	Blue mussels (lbs.)
565,000	Red king crab (lbs.)
1.9 million	Sea cucumbers (lbs.)

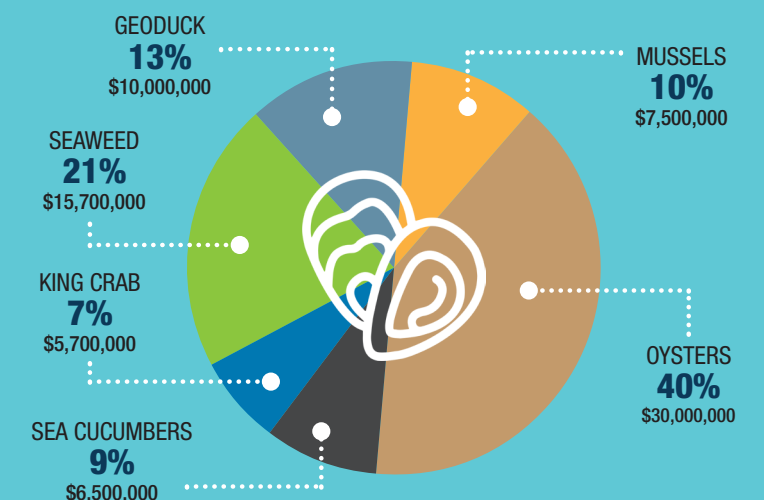
### 20-Year Annual Economic Impact

**\$100 million+**  
Annual output, including all direct, indirect, and induced effects

**\$75 million** in industry sales  
**1,500** total jobs  
**\$38 million** in direct wages  
**\$49 million** in total labor income

Note: 2017 dollars

### 20-Year Annual Revenue Goals





UNIVERSITY  
of ALASKA  
*Many Traditions One Alaska*



*Southeast Alaska Regional Dive Fisheries Association*



OceansAlaska  
MARINE SCIENCE CENTER

# ALASKA MARICULTURE TASK FORCE

Governor Bill Walker established the Alaska Mariculture Task Force (MTF) in 2016 to create a comprehensive plan for development of a viable and sustainable mariculture industry in Alaska. Eleven representatives of communities, tribes, industry, hatcheries, researchers, and state government comprise the MTF.

*Julie Decker, **MTF Chair, Alaska Fisheries Development Foundation***

*Paula Cullenberg, **Alaska Sea Grant***

*Angel Drobnya, **Aleutian Pribilof Island Community Development Association***

*Jeff Hetrick, **Alutiiq Pride Shellfish Hatchery***

*Heather McCarty, **Central Bering Sea Fishermen's Association and Alaska King Crab Research, Rehabilitation and Biology Program***

*Mike Navarre (current Commissioner)/Chris Hladick (former Commissioner), **Alaska Department of Commerce, Community, and Economic Development***

*Sam Rabung, **Alaska Department of Fish and Game***

*Dr. Michael Stekoll, **University of Alaska Southeast and University of Alaska Fairbanks***

*Kate Sullivan, **Southeast Alaska Regional Dive Fisheries Association***

*Christopher Whitehead, **Sitka Tribe of Alaska and Southeast Alaska Tribal Ocean Research***

*Eric Wyatt, **OceansAlaska and Blue Starr Oyster Company***

The full plan may be accessed through the Alaska Fisheries Development Foundation [www.afdf.org](http://www.afdf.org) and the Alaska Dept. of Fish and Game [www.adfg.alaska.gov](http://www.adfg.alaska.gov)



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