The Alaska Mariculture Task Force (MTF) Regulatory Issues Advisory Committee (AC) met five times between September 2016 and April 2017 to identify perceived regulatory challenges to the growth of the mariculture industry in Alaska and to develop recommendations for actions to address these challenges. Members and contributors to the AC included: Sam Rabung (Chair, ADFG); Jim Aguiar (Aquatic Farmer); Adam Smith (DNR); John Kiser (Aquatic Farmer); Kim Stryker (DEC); Eric Wyatt (Aquatic Farmer); Christy Colles (DNR); Chris Whitehead (Sitka Tribe); Julie Decker (AFDF); Clark Cox (DNR); Paul Fuhs (Aquatic Farmer); Eric O’Brien (Aquatic Farmer).

What is Mariculture?

Mariculture, simply put, is marine aquaculture or the culture of marine organisms. Mariculture includes both rehabilitation and enhancement of wild fisheries and aquatic farming. Rehabilitation and enhancement is the culturing of marine organisms for release into the wild to benefit common property wild capture fisheries. Aquatic Farming is the culturing of marine organisms in captivity or under positive control to benefit private business.

Shellfish rehabilitation and enhancement permits are currently not authorized in Alaska, therefore the only legal form of mariculture in Alaska as of this writing is aquatic farming. Most of the aquatic farm product currently grown in Alaska is Pacific oysters and blue mussels. However, as the industry continues to expand and culture techniques are refined, it is anticipated other products such as the geoduck clam, littleneck clams, and marine plants will gain prominence within the industry.

Brief Legal Background for Mariculture in Alaska

Constitution

Alaska is a common property resource state and the Alaska Constitution includes provisions relating to common use. Most tide and submerged lands within Alaska’s 40,000 miles of coastline are a common property resource managed upon multiple use principals and sustained yield requirements. The State of Alaska Constitution requires resource decisions to be vetted thru a public process and noticed for public input to balance resource management decisions with the best interests of the State of Alaska. Management of replenishable resources for sustained yield is enshrined in Article 8, Section 4, of the constitution. Article 8, Section 15, specifically prohibits exclusive right of fishery; however, this section was amended in 1972 to provide exemptions for the state to both limit entry into fisheries for conservation and economic reasons, and to provide for the efficient development of aquaculture in Alaska. Article 8 also provides for the use of state lands and waters, with certain assurances, in Sections 8 and 14. Article 7 requires that the legislature provide for the promotion and protection of the public’s health.

Statute

Several statutes have been approved by the Alaska Legislature that provide for mariculture activities in the State. The fisheries rehabilitation, enhancement and development statute (AS 16.05.092) went into effect in 1971, directing the Alaska Department of Fish and Game (ADFG), in part, to encourage private investment in the development and economic utilization of fisheries resources, and through rehabilitation,
enhancement and development programs, do all things necessary to ensure perpetual and increasing production and use of the aquatic resources of the state.

The Aquatic Farm Act (Section 19, Chapter 145, SLA 1988) was signed into law on June 8, 1988, authorizing the Commissioner of ADFG to issue permits for the construction or operation of aquatic farms, and hatcheries to supply aquatic plants or shellfish to aquatic farms (AS 16.40.100 - 199). The intent was to create an industry that would contribute to the state's economy and strengthen the competitiveness of Alaska seafood in the world marketplace, broadening the diversity of products and providing year-round supplies of premium quality seafood. The law limited aquatic farming to shellfish and aquatic plants and in 1990 CSHB 432 became law, prohibiting farming of finfish in the state (AS 16.40.210).

Statute also authorizes Alaska Department of Natural Resources (DNR) to make land and water available through lease for aquatic farming subject to bonding or other security (AS 38.05.083). All lease applications and proposed decisions are required to be noticed for public comment per AS 38.05.945 before a final decision is rendered by DNR.

Statutes that direct the Alaska Department of Environmental Conservation (DEC) to provide for food safety are found in the Alaska Food, Drug, and Cosmetic Act in AS 17.20.

There is currently no statutory authorization to issue permits for shellfish rehabilitation and enhancement projects, however, bills were introduced in 2016 and again in 2017 to achieve this.

**Statewide Aquatic Farm Program and Agency Roles**

The statewide program is jointly administered by three state agencies: the Department of Natural Resources (DNR), the Alaska Department of Fish and Game (ADFG), and the Department of Environmental Conservation (DEC). Each of these state agencies has a specific role in authorizing and managing aquatic farm activities within Alaska.

The DNR authorizes the use of tide and submerged land and seeks to balance use of the land for the development of aquatic farming with traditional uses of the area, upland owner access, public access, and navigation of public waters as required under Article VIII of the Alaska State Constitution. The department is required to balance disposal of interest (lease) decisions with traditional and existing uses within a given area to ensure proposed farm sites are compatible. If approved, leases authorize a specific footprint and infrastructure to remain on state land to support aquatic farming activities. DNR is required to charge no less than appraised fair market value for lease fees which require annual land use fees. Lease holders are also required to post a bond to cover the costs to the department of restoring leased sites in the event the site is abandoned. Other requirements include providing proof of commercial liability insurance and meeting the commercial use requirements outlined within 11 AAC 63.030(b) within five years of lease issuance. DNR aquatic farm regulatory guidance is contained in 11 AAC 63.010 – 050.

The ADFG issues permits for the operation of aquatic farms and aquatic farm hatcheries, acquisition of stock, and transport of seed and aquatic farm products; certifies and permits seed coming into the state and transported within state for aquatic farming, ensures aquatic farming does not significantly alter established fishery or other existing uses of resources, does not significantly affect fisheries, wildlife or their habitats in an adverse manner, and determines wild stock populations prior to permitting aquatic farm species. ADFG employs the “precautionary principle” when authorizing use of resources in order to ensure sustained natural productivity of common property resources. Specific ADFG aquatic farm regulatory guidance is contained in 5 AAC 41.001 – 400.
To protect human health, the DEC classifies growing areas, issues permits, conducts inspections, investigates complaints, conducts outreach and training, and monitors bacteria and toxins in shellfish harvest areas (growing waters) and shellfish products. Primarily, two programs within DEC are involved: the Food Safety and Sanitation program (FSS), the state’s Shellfish Sanitation Authority, and the Environmental Health Laboratory (EHL), which provides the FSS program analytical support to carry out its responsibilities. DEC regulates the shellfish industry through adoption by reference at 18 AAC 34 of a document called the National Shellfish Sanitation Program Model Ordinance (NSSP MO). The NSSP MO specifies sanitation requirements for harvesters, dealers, and shucker/packers and outlines State regulatory program requirements so that shellfish grown and harvested in Alaska may be sold interstate.

**Regulatory Issues Advisory Committee Recommendations**

The table below presents the Regulatory Issues Advisory Committee’s recommendations to address regulatory challenges to mariculture in Alaska. These recommendations were identified through broad participation with farmers, industry representatives and state agencies, and are organized by priority groupings of 1) Near Term needs; 2) Intermediate Term needs; and 3) Long Term needs. *Many of these suggestions require legislation, funding, or both. These nonbinding recommendations are offered to the Mariculture Task Force for consideration and do not commit any industry representative or agency to additional action beyond these recommendations.*
## Alaska Mariculture Taskforce
### Regulatory Issues Advisory Committee
#### Recommendations to Address Regulatory Challenges to Mariculture in Alaska

**4/25/2017**

<table>
<thead>
<tr>
<th>Agency</th>
<th>Regulatory Issue</th>
<th>Recommendation to Address</th>
<th>Priority</th>
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<tbody>
<tr>
<td>1</td>
<td>ADFG Shellfish stock restoration, rehabilitation, and enhancement projects are not legal in Alaska, other than for small scale research or for ADF&amp;G projects.</td>
<td>Pass legislation creating authority to issue permits for this type of activity (2016 HB300/SB172; 2017 HB128/SB89)</td>
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<td>2</td>
<td>ADFG Importation of seed from outside of Alaska is limited to only Pacific Oysters from the pacific Northwest, and to Weathervane Scallops produced from parents taken from SE Alaska and Yakutat areas.</td>
<td>Amend regulation (5 AAC 41.070 Prohibitions on importation and release of live fish) to allow for other species using the Weathervane Scallop model.</td>
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<td>3</td>
<td>ADFG Genetic requirements are restrictive and limit wide distribution of indigenous organisms for farm stock. These requirements include limitations on the distance from the donor stock acquisition location that progeny may be grown out at, and large minimum donor stock numbers to ensure genetic diversity in progeny.</td>
<td>A) Indigenous stock used on farms that can reproduce naturally in those same waters may potentially impact natural production of that species locally. However, if triploid (sterile) stock is used, or if the species does not occur or reproduce naturally in an area, there are no genetic concerns. Adopt regulation to clearly state that sterile stock, and species that do not occur or reproduce naturally within some significant distance of the farm growing area, are not subject to the ADF&amp;G genetic policy. B) Adopt regulation to require a timeline for action to gain information when a lack of genetic stock structure data for a species forces precautionary restrictions on transport of indigenous organisms used as mariculture seed.</td>
<td>2</td>
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4 ADFG Aquatic (wild) stock acquisition is limited to only initial needs in Statute (AS 16.40.120(f)(1)) and regulation (5 AAC 41.290(b) and (d)). Donor stock of indigenous species may need to be collected on a continual basis to propagate and produce seedstock for aquatic farms and nurseries and for growout of natural set on farmsites. Amend the statute and regulations to remove the word “initial”.

5 ADFG Requiring excessive detail and speculative information on applications and plans, and inflexibility to species and gear diversification in real time. Adhere to the actual language in statute and regulation in order to avoid “over reach”. Any information requested should have an identified purpose and need. Additional requirements or restrictions should be promulgated through statutory and regulatory change processes rather than personal interpretations.

6 DNR Bonding, insurance, and annual land use fees are challenging for farmers to pay, especially new farmers not selling product yet. A) Establish a mechanism or funding source to offset lease costs. This could be tied into aquatic farm loan programs and provide start up financing for new farmers. Amend regulation to allow for deferring a portion of fees, or for a graduated increase in lease fees, until farmsite is producing.

B) Farmers with demonstrated training or experience working a farm, or new farmers that locate near an established farm, should be considered for a reduced bond amount since they will be lower risk.

C) Adopt industry sponsored training or best practice standards to ensure new farmers understand aquatic farm site selection, husbandary practices, marketing and financial planning requirements. This may increase success of the new farmer but may not remove bonding requirements.
| DNR | DNR statute AS 38.05.083(e) & regulation 11 AAC 63.080 require bonds to pay any defaulted lease fees and cleanup a site if abandoned by the leaseholder. The minimum bond amount of $2500 is not adequate surety to clean up sites. | A) Pass legislation to create a bond pool which could be utilized to cleanup abandoned farms and pay default fees. A bond pool could reduce individual bond requirements if it were adequately funded. |
| DNR | Commercial Liability Insurance and Worker’s Compensation Insurance requirements are expensive for farmers. | B) Obtain legal authority to enter into agreement with another farmer(s) to clean up a defaulted farmsite, incentivized by offering the defaulted farms security bond, gear and inventory as compensation upon successful restoration of the defaulted farmsite. |
| DNR | The commercial use requirement (11 AAC 63.030(b) is a low benchmark for farmers to demonstrate their farms commercial viability by year 5 of a lease. This benchmark does not work for all species. | Pass legislation to create insurance coverage for commercial farmers or encourage broad insurance policies to be adopted by industry sponsored groups or organizations that cover its members. |
| DNR | Lease size is required to encompass the entire footprint of the farm site including anchors and scope of lines. This expands lease size substantially for larger farmers which increases cost per surface acre farmed and ties up additional surface area not actually being farmed. | Amend 11 AAC 63.030(b) to consider a longer term for farms producing only slow growing species such as geoduck and a shorter term for farms producing only fast growing species such as seaweed. |
| DNR | Escalating lease fees during the lease period makes it difficult to plan the operations/expenses of the farm. | Amend regulations to separate actively farmed lease acreage, such as surface water footprints, from the on bottom acreage needed to secure infrastructure such as the anchors, lines and scope for purposes of calculating the lease fee. |
| DNR | Only change the lease fee when the lease is renewed or transferred. Do not change the lease fee during the effective period of the lease. | Only change the lease fee when the lease is renewed or transferred. Do not change the lease fee during the effective period of the lease. |
There is a lack of open access to collected and reported environmental data. Farmers, and others, need open access to this data in order to conduct individual analysis and to assist DEC and others conducting problem-solving efforts.

Growing water sampling and PSP testing is slow and expensive. It is extremely challenging for many farmers to transport water samples to the DEC laboratory in Anchorage within the time and temperature constraints required.

Communication is not organized to reach all farmers and industry representatives. There is no authorized body representative of farmers and industry to work with agencies in drafting and implementing rules and regulations.

There is a seemingly adversarial role by some regulators towards mariculture. Recognizing that departments operate within many strict guidelines, regulations, statutes, and manpower and fiscal constraints, and that many of those are necessary to protect the public, there is an impression that some individual regulators tend to interpret guidance more stringently than is required or was intended, or that enforcement of a flawed rule or regulation is easier than seeking a beneficial solution.

Make the data visible, or if it is not utilized and stored, do not require that it be collected and submitted. DEC has been working towards providing for an open data exchange/viewing site since April of 2016. If this is not feasible within DECs resources, allow industry to establish an authorized industry-wide database or assist DEC with creating one that can provide this service.

Support certification of additional private labs and testing methods in order to facilitate ease of transport, faster results and more cost effective testing.

Support research into holding for depuration and certification of process.

Pass legislation to establish a comprehensive board or group to represent farmers and industry in interactions with regulatory agencies.

Direct regulatory agencies to adopt an advocacy approach to the mariculture industry for the benefit of the State. Regulators should seek to make improvements to bureaucratic rules and regulations that needlessly impede the growth of the industry while still fulfilling their responsibilities to protect the people and resources of the state.
There is no assurance to the State that an aquatic farmer is qualified or capable. Regulatory agencies have a responsibility to the people of the State to ensure that resources are used wisely. One reason for the oversight and stringent requirements imposed upon aquatic farmers by the State is that there is no way to determine if a farmer has the knowledge and/or experience to operate a farm.

Amend agency regulations to provide for acceptance of industry-driven training as qualification. Aquatic farmers are currently developing a series of training and accreditation efforts that will provide a better trained workforce and better, more knowledgeable, farmers/operators who will have standardized skills and knowledge, as a minimum. When this program is fully developed and implemented, this accreditation/certification should be accepted and used by state agencies to demonstrate an applicant has the knowledge and skill sets required to work on, or operate, a successful farm. This should be considered an endorsement for favorable consideration of the farmers aquatic farm permit application, lower bonds, initially smaller lease rates, loan guarantees, etc.