

Five-Year Action Plan

Working Draft Approved as of 2019-12-13

Preface: *This Five-Year Action Plan is a working document and is expected to be updated as dynamic changes occur. This version was approved by the Alaska Mariculture Task Force (Task Force) on December 13, 2019. The Action Plan outlines the necessary next steps for developing the mariculture industry. Given the sunset date of the Task Force on June 30, 2021, the Task Force also identified the priority actions below during that period:*

Immediate Priority Actions = 6 months

- EVOS mariculture proposal and other funding sources
- Mariculture Revolving Loan Fund – increase the corpus of the Fund
- Legislation (HB 41, HB 116, ASMI, ecotourism)
- ADNR regulatory/policy-related changes (e.g. reduce application backlog, application and process improvements, adjustments to application fee structure)
- Strategy to support funding for ADEC lab testing fees

Near Term Priority Actions = 18 months

- Creation of Alaska Mariculture Development Council
- Plan for regional hatchery production to meet demand

Additional Priority Recommendations from the Comprehensive Plan (2018)

- Establish a Mariculture Research Center
- Re-establish the Mariculture Specialist position within Alaska Sea Grant

KEY:

**Priority recommendations from comprehensive plan*

Yellow highlight denotes near-term priority actions (next 6-18 months)

Red text denotes actions in progress with Alaska agency staff – re-affirm with State Admin

Green denotes completed actions

Industry Development

1) Create Alaska Mariculture Development Council*

Objective – stakeholder-driven coordination across industry, agencies, researchers, and communities in order to facilitate and guide development of the industry.

Tasks:

- Investigate existing models and functionality
 - Consider funding mechanisms & composition
 - Consider authority & responsibility for implementation of comprehensive plan
- Create guiding principles which include various industry sectors
- Designate representational distribution of members of the Council
- Designate the authority and responsibility of the Council
- Write foundational documents (i.e. legislation, bylaws, etc.)
- Adopt foundational documents

Timeline: 2019-June, 2021

Responsible entities: MTF

Infrastructure

2) Develop in-state seed/juvenile supply*

Objective – Investment in infrastructure and expertise to secure shellfish and seaweed seed/juveniles for current and future industry growth.

Tasks:

- a. conduct statewide needs assessment
- b. investigate existing models and functionality
- c. secure operating funds for existing hatcheries
- d. consider funding mechanisms and models besides seed sales (i.e. tourism, self-assessment on final sales, cost recovery, etc.)
- e. consider management models (i.e. cooperative, non-profit, state-owned/industry-operated, vertically integrated, etc.)
- f. provide technical transfer and expertise to hatchery staff
- g. support new hatcheries and nurseries as needed for industry growth and regional development

Timeline: 2019-2023

Responsible entities: MTF/AMDC, AFSC, ADCCED, AKCRRAB, Alutiiq Pride, OceansAlaska, Kachemak Mariculture Association, farmers.

Access to capital

3) Expand Mariculture Revolving Loan Fund (MRLF)

Objective – Provide additional capital to small farms and non-profit hatcheries

Tasks:

- promulgate regs to implement HB 76 (MRLF) to include hatcheries)
- Support adding funds to state’s existing MRLF
- Provide flexibility in loan approval process, such as improved collateral valuations
- Consider change of interest rates to something similar to USDA Farm Service Agency loan rates

Timeline: 2019-2020

Responsible entities: MTF, ADCCED, Legislature

4) Explore and expand additional sources of public and private capital

Objective – Provide access to additional sources of capital for farms and hatcheries

Tasks:

- Discuss options for other financing to be used for mariculture development (i.e. ADNR’s Agriculture RLF, AIDEA’s financing programs, NOAA’s Federal Fisheries Finance Program, USDA Farm Service Agency loan program, EVOS funds, Tribes, environmental orgs, etc.)
- Once alignment is confirmed, distribute information to industry and develop appropriate strategy

Timeline: 2019-2021

Responsible entities: MTF, NOAA Regional Aquaculture Coordinator (RAC), ADCCED, Alaska Development Team.

Business Models

5) Consider cooperative structures

Objective – Educate industry participants about the ability of coops to offer members many benefits (efficiencies, shared risk, common facilities, seed, markets, etc) and are models used in both seafood & agriculture

Tasks:

- Identify any regulatory or statutory hurdles to these structures
- Identify interested parties

Timeline: 2020-2023

Responsible entity: MTF, Alaska Cooperative Development Center

6) Consider community-based structures

Objective – Explore and identify the potential benefits of community-based models of ownership and operation of mariculture development

Tasks:

- Identify any regulatory or statutory hurdles to these structures
- Identify interested parties

Timeline: 2020-2023

Responsible entity: MTF, CDQ groups, Alaska Native Corporations, communities

Industry Information Needs

7) Provide web-based central clearing-house for mariculture information

Objective – Create and maintain an easily accessible and regularly updated public information center

Tasks:

- a. Develop and maintain list of funding sources for mariculture development
- b. Develop guide to federal and state permit requirements
- c. Collect and display all relevant educational materials

Timeline: 2020-2021

Responsible entity: Alaska Sea Grant, NOAA RAC

8) Investor Outreach

Objective – Provide information specifically designed for potential investors (growth rates, PSP, etc) to develop business plans & assess opportunities

Tasks:

- a. Create fact sheet for potential investors
- b. Do targeted outreach to seafood processors, ANCs, CDQs, PCSGA (WA growers)

Timeline: 2020-2023

Responsible entity: AMDC, Alaska Sea Grant, AFDF

9) Support continued learning with other regions of world

Objective – develop contacts in other regions that allow information sharing and learning with existing industry

Tasks:

- Visits to other countries (e.g. Scotland, New Zealand, Faroe Islands)
- Workshops with key contacts in other regions to facilitate cross-communication

Timeline: 2020-2023

Responsible entity: ASGA, NOAA Aquaculture, NGOs

10) Develop and maintain GIS map tool in-state waters

Objective - provide siting info to potential investors/regulators that allows development and reduces conflict

Tasks:

- Build & house prototype; demonstrate to agencies & industry
- Incorporate suggested changes into version 2.0
- Provide instructional webinars to interested participants

Timeline: 2019-2020

Responsible entities: AFDF, Axiom, AOOS, ADEC, ADFG, ADNR

Industry Training

11) Expand formal education in mariculture

Objective - expanded capacity of University, ANSEP and other institutions/programs to educate/train for all levels of workers (including researchers, hatchery, business, financing, etc)

Tasks:

- Educate the University leadership and Alaska Legislature of this need
- Support hiring relevant mariculture faculty for teaching

Timeline: 2020-2023

Responsible entities: University of Alaska, Marine Advisory Program, Alaska Sea Grant, National Sea Grant, NOAA RAC

12) Develop and provide mariculture skill-building resources

Objective -

Tasks:

- Offer support and/or training related to ADNR aquatic farm lease applications
- Offer informal, flexible hands-on training programs by building on progress to date (e.g. boot camp, apprenticeship, mentorship)
- **provide "Introduction to Shellfish/Seaweed Farming" for new farmers or farm employees**
- Offer professional development to growers, available remotely and in-person, particularly related to ADEC requirements and food safety

Timeline: 2020-2023

Responsible entity: Alaska Sea Grant, NOAA RAC, Tribes

Marketing

13) Build on ASMI programs

Objective – Consider the benefits of and stages of industry “joining” ASMI and adding marketing of mariculture products to the existing marketing of wild capture seafood products.

Tasks:

- Draft bill to amend ASMI statutes:
 - Step 1 - to remove prohibition to market aquatic farm products
 - Step 2 - to allow for self-assessment election, similar to existing seafood industry funding mechanism
- a. ASMI Board resolution in support of bill
- b. Determine sponsor, introduce and support passage of legislation
- c. Change ASMI Bylaws
- d. Secure other funding mechanisms or sources to augment ASMI work in the near term

- e. Revise ASMI strategic plan & tag line to include mariculture products & messaging
 - f. Include information about positive benefits of mariculture at every level of marketing, similar to inclusion of sustainability in wild seafood marketing
- Timeline: Step 1 = 2019-2020; Step 2 = 2023
Responsible entity: MTF, ASMI ED & Board, Legislature

14) Build collaboration with Alaska Grown and others

Objective - build synergy with a larger group of Alaska Food Producers (e.g. Alaska Food Policy Council, Alaska Grown, ASMI, etc.)

Tasks:

- o Encourage collaboration between Alaska Grown & ASMI; utilize ASMI All Hands meeting

Timeline: 2020-2023

Responsible entities: ASMI, Alaska Grown

Public Outreach

15) Provide public outreach and education

Objective - provide public outreach to multiple audiences to help assure realistic & positive views of mariculture using practical and factual information

Tasks:

- a. identify priority groups & develop effective communication with each
- b. effective communication may be written material, presentations, meetings, ongoing coordination with groups or individuals
- c. identify and counter opposition to mariculture & aquaculture; issues include potential for environmental damage, genetics, conflicting users, market competition, aesthetics

Timeline: 2019-2023

Responsible entity: AMDC, AFDF, ASG, NOAA RAC, ASMI

16) Provide industry advocacy

Objective – Increase understanding in governmental sectors of industry goals and needs

Tasks:

- o Build capacity within ASGA
- o Develop a 5-year plan to address ADEC costs and fees
- o Demonstrate the industry’s economic contribution to the state
- o Discuss appropriate level of industry’s contribution to state revenues given needed state services

Timeline: 2019-2023

Responsible entities: AMDC, AFDF, ASGA, PCSGA, industry

State of Alaska - Statutory

17) Pass legislation to allow shellfish enhancement*

Objective – Create framework for management of restoration, rehabilitation & enhancement of shellfish

Tasks:

- a. Continue to support HB 41 and SB 22 through committee testimony
- b. Compile scientific info to counter opposition
- c. Work with sponsoring Legislators and committee chairs to move bill out of Senate Finance Committee and onto Senate floor vote

Timeline: 2019-2020

Responsible entities: MTF, AFDF, ADFG, industry, Legislature

18) Pass legislation to simplify ADNR lease renewal process

Objective – reduce uncertainty for farmers, burden on state agencies, and backlog of applications

- a. Continue to support HB 116 through committee testimony
- b. Work with sponsoring legislators and committee chairs to move bill
- c. **Secure support from the Administration**

Timeline: 2019-2020

Responsible entity: MTF, AFDF, ADNR, ASGA, Legislature

19) Develop simplified application process for micro farms, up to 1 acre (e.g. Maine)

Objective – facility entry-level participation by creating simplified process for micro farms which allows new farmers to develop farms with less start-up capital and risk.

Tasks:

- a. Analyze Maine example
- b. Analyze Alaska’s existing ADNR lease statutes
- c. Design Alaska micro farm model
- d. Identify statutory changes required to implement Alaska micro farm model
- e. Identify bill sponsor and supporters; introduce bill and support passage.

Timeline: 2021-2023

Responsible entity: AMDC

20) Allow subleasing of aquatic farms

Objective – allow for multiple public or private relationships to encourage new entrants into aquatic farming (i.e. communities, Alaska Native Corporations, others)

Tasks:

- o ADNR will discuss internally to confirm this is already possible.

Timeline: 2019

Responsible entity: ADNR (Colles, Joe Joyner)

***ADNR believes this is already allowable and has already been done in Yakutat and Kake. ADNR will confirm this.

21) Allow eco-tourism and education as allowable activities at aquatic farms

Objective – encourage tourism and mariculture partnership activities

Tasks:

- Draft bill to make ecotourism an allowable activity on aquatic farm leases (AS 38.05.095)
- Identify sponsor for the bill

Timeline: 2019-2020

Responsible entity: ADNR (Colles, Joe), MTF, ASGA, Legislature

State - Regulatory Changes

22) Amend commercial use requirement (step #1) and enforce (step #2)

Objective - allow shorter or longer term for commercial use requirements, depending upon species; enforce new regs.

Tasks:

- ADNR has current draft regs for step #1
- ADNR review draft regs for see if any additional changes need to be made; combine in reg package; provide public notice and comment period
- Give farmers at least 2 years notice prior to enforcement (step #2)

Timeline: 2020-2022

Responsible entity: ADNR, MTF

23) Build tribal & local outreach into application process

Objective - avoid conflict and increase rate of success for new farm apps

Tasks:

- add requirement to application to send letter to local tribe and community
- demonstration to industry of examples of best practices

Timeline: 2019

Responsible entity: MTF, ADNR, NOAA

***ADNR already does this by alerting nearby entities during public comment process. This can be furthered as an industry best practice.

24) Regulatory amendment to allow flexibility to increase term of lease from 10 to 20 yrs

Objective – allow both 10 or 20-yr term leases (20-yr requires additional site survey)

Tasks:

- Internal discussions to determine all possible paths to this end result

Timeline: 2019-2020

Responsible entity: ADNR (Colles, Joe), MTF

***DNR believes the ability currently exists to allow for a longer-term lease given a survey (survey technology is getting easier and will become cheaper 2021) and a competitive bid. This may allow for up to 55-year leases.

State - Policy issues

25) State of Alaska commitment to support mariculture & comprehensive plan

Objective - State will express clear commitment to support comp plan & defined state role & direct regulatory agencies to adopt advocacy approach to mariculture industry

Tasks:

- Support is being provided through actions of Alaska Development Team
- Support is provided toward implementation of the Action Plan

Timeline: 2019-2022

Responsible entity: MTF, Governor, Alaska Development Team, Legislature

***Governor Dunleavy: "We want to make Alaska the mariculture capital of the world."

Request permission to use this quote.

26) ADFG genetics policy

Objective – continue to develop relationships and understanding between industry and ADFG to allow advancement of mariculture techniques and practices while preserving genetic integrity

Tasks:

- a. Encourage genetic research for every commercially grown species
- b. Determine if sterile stock and species that do not reproduce need to be subject to genetics policy
- c. analyze application of recent seaweed genetics research results
- d. identify priority genetics research to be used to inform a new mariculture genetics research policy
- e. identify funding to perform the prioritized research

Timeline: 2019-2023

Responsible entity: MTF/AMDC, AFSC, ADFG, University of Alaska

27) Revise aquatic farm application

Objective - adhere to actual language in statute/reg for application requirements

Tasks:

- Note improvements as ADNR staff get through app backlog
- Work with MTF and other industry to revise application

Timeline: 2019-2021

Responsible entity: ADNR, ADFG, MTF, Governor's office

28) Reduce bond rates for low risk operations

Objective - allow reduced bonds for farmers with demonstrated training or experience

Tasks:

- Work with Division of Insurance to understand the problem better and clear up the language to clarify

Timeline:

Responsible entity: ADCCED (Fagnani), Division of Insurance (Laurie), ADNR (Colles)

*** Minimum bond language is in reg (\$2,500); the bond market doesn't know how to write the bond and the bond language; bond pool language is already in place which allows for 3 or more farmers to form a bond pool which reduces the bond requirements by half.

29) Obtain legal authority for agreements between farmers for clean-up

Objective – support DNR offering bond & abandoned gear to other farmers for clean-up services

Tasks:

- State could issue RFP for industry to do it
- State could require 3 bids; or
- Industry could come to DNR to clean up an abandoned site and get the bond funds and maybe other sources (situation dependent).

Timeline:

Responsible entity: Educational issue within industry, ASGA, etc.

***Both of these options are possible already. The best thing for industry to do is to assign the lease before the industry farmer fails and abandons. DNR does keep an informal list of people that might be interested in taking over a lease assignment.

***Statutes require DNR to assess lease fees every five years. They just raised rates, but had not raised fees prior to that for a while. Consequently, this action seems not likely and is recommend for removal.

30) Amend DNR leases application fees

Objective – change the three categories of lease fees to more closely align with the current range of application sizes being received which will help small farms (e.g. change categories from 0-1, 1-2, 2-3 acres to 1-50, 50-100, 100+ acres)

Tasks:

- DNR will review current regs and consider drafting new regulations
- New regs are proposed for adoption through public process in reg package

Timeline: 2019-2020

Responsible entity: ADNR (Colles, Joe)

***NEW – after discussion with Alaska Development Team

31) Reduce application backlog

Objective – ADNR lease application process completed for all applicants within 1 year

Tasks:

- ADNR internal review of staffing
- Implement system review during processing of applications in order to prepare for improvements to system

Timeline: 2019-2021

Responsible entity: ADNR, MTF

32) Allow ADEC data to be visible

Objective – allow public access to data collected from water sampling & PSP testing that is important for farmers to access (either nearby or new start-ups)

Tasks:

- ADEC commitment to provide access if not overly burdensome to ADEC IT staff
- Axiom IT contractors contact ADEC IT staff to determine requirements needed from ADEC

Timeline: 2019-2020 (not sure about timing, due to staffing issues)

Responsible entity: Axiom, ADEC (Christina & IT)

33) Create new bond pool and insurance pool

Objective – commercial liability and workers comp insurance is expensive and insurers often do not understand what is needed for this new industry in order to write policies; may be addressed through creation of new pool (e.g.

Tasks:

- Internal discussion between ADCED, ADNR & Division of Insurance to better understand requirements and potential solutions
- Consider pathways to reduce these hurdles
- Consider creation of insurance and bond pools through legislation

Timeline: 2019-2020

Responsible entity: ADCED (Fagnani & Laurie – Division of Insurance), ADNR (Colles), MTF

34) Strategy to support funding for ADEC lab testing fees

Objective – Ensure farmers have access to markets through consistent funding and support for federal required testing to assure shellfish safety prior to commercial sales.

Tasks:

- Industry collects information related to fees and funding sources in other states
- Industry documents current costs for PSP testing and water quality certification
- Investigate federal funds to support meet federal requirements
- Develop administrative and legislative strategy

Timeline: 2020-2021

Responsible Entities: ASGA, SARDFA, ADEC, staff for AK Congressional Delegation

***ADEC will conduct a fee study. The current reg is \$125/PSP sample, and \$17/water sample, but they are looking to increase the fee above that. 2019 tests would equate to about \$90K. The FY2021 budget calls for \$230K to collect from industry from fees, with additional increases over time to raise approximately \$700K.

35) Support certification of new testing labs and methods

Objective - Enable efficiencies in transportation, test results & potential fee reductions

Tasks:

- Support FDA adoption of the non-mouse bioassay PSP test for commercial purposes
- Support STA's applications for certification as lab
- Support certification of more water testing labs

Timeline: 2021-2023

Responsible entity: Sitka Tribe of Alaska, ADEC, ISSC

*****ADEC is supportive (e.g. will work with Sitka Tribe towards certification) particularly as industry grows and may exceed capacity at ADEC lab in ANC, but noted industry would have to pay a fee for a third-party testing. ADEC emphasized a desire to see more labs certified for water quality testing.**

Federal Government - Policy

36) Encourage NOAA to hire Aquaculture Coordinator in Alaska Region*

Objective – provide leadership, coordination and support at the federal level for mariculture endeavors in Alaska

Tasks:

- Document need and priorities for increased NOAA capacity
- Identify NOAA funding
- Conduct hiring process

Timeline: 2019

Responsible entity: NOAA, MTF

COMPLETED!

37) Support Alaska Sea Grant hiring Mariculture Specialist*

Objective – fill the previous position not re-filled after a retirement

Tasks:

- Maintain support for full funding for the position
- Move ASG out of College of Fisheries and Ocean Sciences (CFOS)

Timeline: 2019-2021

Responsible entities: Alaska Sea Grant, University of Alaska, NOAA Aquaculture, Alaska Development Team, MTF, Alaska Congressional Delegation

38) Re-instate the U.S. Army Corps of Engineers general permit for farming

Objective - Instead of requiring each farmer to obtain individual Corps permits, re-instate general permit for all

Tasks:

- Investigate the possibility of Alaska obtaining a general permit, including recent court cases
- After determining feasibility and possibilities, engage Alaska Congressional Delegation

Timeline: 2019-2021

Responsible entity: NOAA RAC, US Army Corps, Alaska Congressional Delegation, AMDC

39) Support revision of marine mammal policy

Objective – Ensure marine mammal policies are applied consistently and reasonably to protect wildlife and allow mariculture development (seals, sea lions, whales)

Tasks:

- Consider NOAA report “Evaluation of US shellfish aquaculture permitting systems” 2018
- ADFG consultation on potential additional changes
- Consider effects of Humpback whale critical habitat listing

Timeline: 2019-2021

Responsible entity: NOAA RAC, ADFG, AMDC

***ADFG developed written policy in 2019

Category: Research

(2 actions)

40) Explore options for implementation of Mariculture Research Center (MRC) concept*

Objective – Adopt a flexible approach to implementation of this concept which takes advantage of timely opportunities related to funding and staffing availability, and can ramp up to the full vision over time as the industry grows.

Tasks:

- a. Consider inclusion of the following elements:
 - i. Entity for research coordination and funding
 - ii. Director of research coordination and funding
 - iii. Research Advisory Body
 - iv. Annual R&D Forum
 - v. Maintain and annually update lists of research priorities

Timeline: 2019-2021

Responsible entities: MTF, NOAA, AFSC, EVOS, University, ASG, Alaska Development Team

41) Support completion of and funding for the identified research priorities

Objective – Support growth and increased productivity of industry

Tasks:

- a. Create strategy to secure federal funds
- b. Create strategy to secure other funds

Timeline: 2020-2023

Responsible entity: MTF/AMDC, Alaska Development Team, University, NOAA, EVOS, Alaska Congressional Delegation