

ADF&G PERMITTING AQUATIC FARMING AND AQUATIC RESOURCE PERMITS

UNIVERSITY OF ALASKA SOUTHEAST

MARICULTURE CLASS

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ALASKA DEPARTMENT OF FISH AND GAME

OCTOBER 13, 2022



ALASKA DEPARTMENT OF FISH AND GAME



MISSION

To protect, maintain, and improve the fish, game, and aquatic plant resources of the state, and manage their use and development in the best interest of the economy and the well-being of the people of the state, consistent with the sustained yield principle.

1988 Aquatic Farm Act Implementation - AK Statutes 16.40.100-199

Aquatic Farming Regulations – 5 AAC 41.200-41.400

WHAT IS AQUATIC FARMING?

- “Aquatic farm” by definition in Alaska statute means a facility that grows, farms, or cultivates aquatic farm products in captivity or under positive control.
- “Positive control” means, for mobile species, enclosed within a natural or artificial escape-proof barrier; for species with limited or no mobility, such as a bivalve or an aquatic plant, “positive control” also includes managed cultivation in unenclosed water

WHAT ARE THE WAYS TO OPERATE AN AQUATIC FARM IN ALASKA?

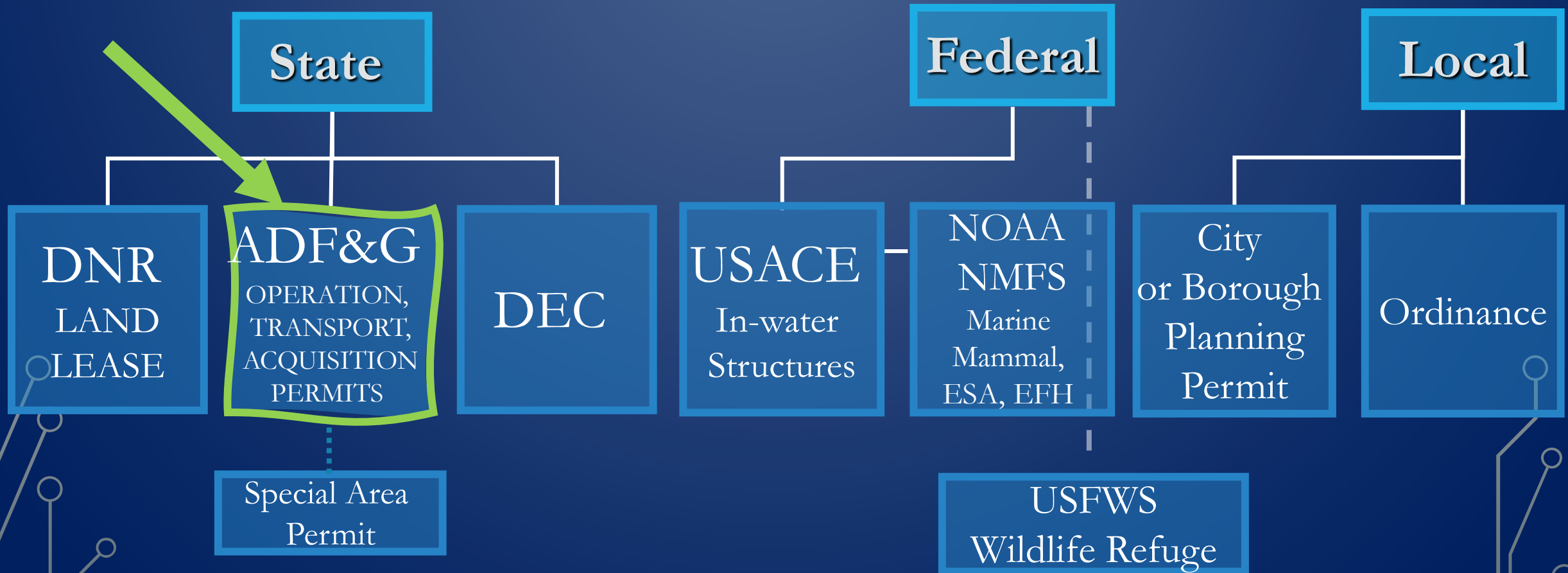
1. Aquatic Farm Operation Permit – Natural Set

- Allows for the collection of natural setting species, that are listed on the operation permit, for sale. Only species that were preexisting or have naturally settled on the site or gear may be harvested.

2. Aquatic Farm Operation Permit – Cultured

- Allows for the sale of species, listed on the operation permit, that are grown from:
 - Hatchery/nursery produced seed or
 - from juvenile wild stock organisms collected through an aquatic stock acquisition permit.



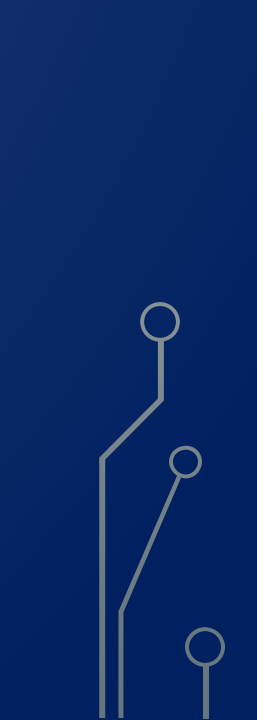
MAJOR STATE, FEDERAL, LOCAL AUTHORIZATIONS





ARTICLE 2. AQUATIC FARMING

Section 16.40.105 CRITERIA FOR ISSUANCE OF PERMITS

- (1) The physical and biological characteristics of the proposed farm or hatchery location must be suitable for the farming or the shellfish or aquatic plant proposed;
 - (2) The proposed farm or hatchery may not require significant alterations in traditional fisheries or other existing uses of fish and wildlife resources;
 - (3) The proposed farm or hatchery may not significantly affect fisheries, wildlife, or their habitats in an adverse manner;
 - (4) The proposed farm or hatchery plans, and staffing plans must demonstrate technical and operational feasibility; and
 - (5) The proposed farm site may not include more than an insignificant population of a wild stock, on the site, of a shellfish species intended to be cultured.
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5 AAC 41.240 REVIEW AND DETERMINATION CRITERIA

1. Physical and biological characteristics of the location are suitable for culture.

- ✓ **Protected - Exchange rates, water temps, currents, salinity, food availability, light, and suspended sediments**
- ✓ **For Suspended culture - Water depth is sufficient to prevent gear from grounding and impacting benthos under structures**
- ✓ **Health and abundance of eelgrass and kelp beds maintained**
- ✓ **Operation not located with 300 ft of mouth of anadromous fish stream**

2. Proposed operations does not significantly alter an established use.

3. Operations compatible with fish and wildlife resources in the area.

- ✓ **Predator control methods have been designed to minimize impacts on non-targeted fish and wildlife.**
- ✓ **No adverse impact to seabird colonies, sea lion haulouts / rookeries, seal haulouts and pupping areas, walrus haulouts.**
- ✓ **No adverse impacts to endangered and threatened species recovery and habitat protection efforts.**

5 AAC 41.240 REVIEW AND DETERMINATION CRITERIA

4. For on-bottom culture proposals for all other indigenous species where wild stock exists, the commissioner has offered an opportunity to harvest species.

6. The proposed aquatic farm site contains an insignificant population of the species intended for culture as determined by 5 AAC 41.235

5. The proposed aquatic farm operation and development plan demonstrates feasibility by describing:

- ✓ Improve productivity of species intended for culture above what would occur in natural conditions.
- ✓ Any support facilities, culture gear, and anchoring systems will be installed and maintained.
- ✓ The projected harvest rotation schedule is consistent with the life history of the species intended for culture.

ADF&G PERMITS

1. **Aquatic Farm/Hatchery Operation Permit** (AFOP) - 10 years

To operate an aquatic farm or hatchery including acquire, possess, and sell aquatic farm products.

2. **Stock Transport Permit** (STP) - 1 year

To transfer stock to, from, or between an aquatic farm, hatchery, or stock acquisition site

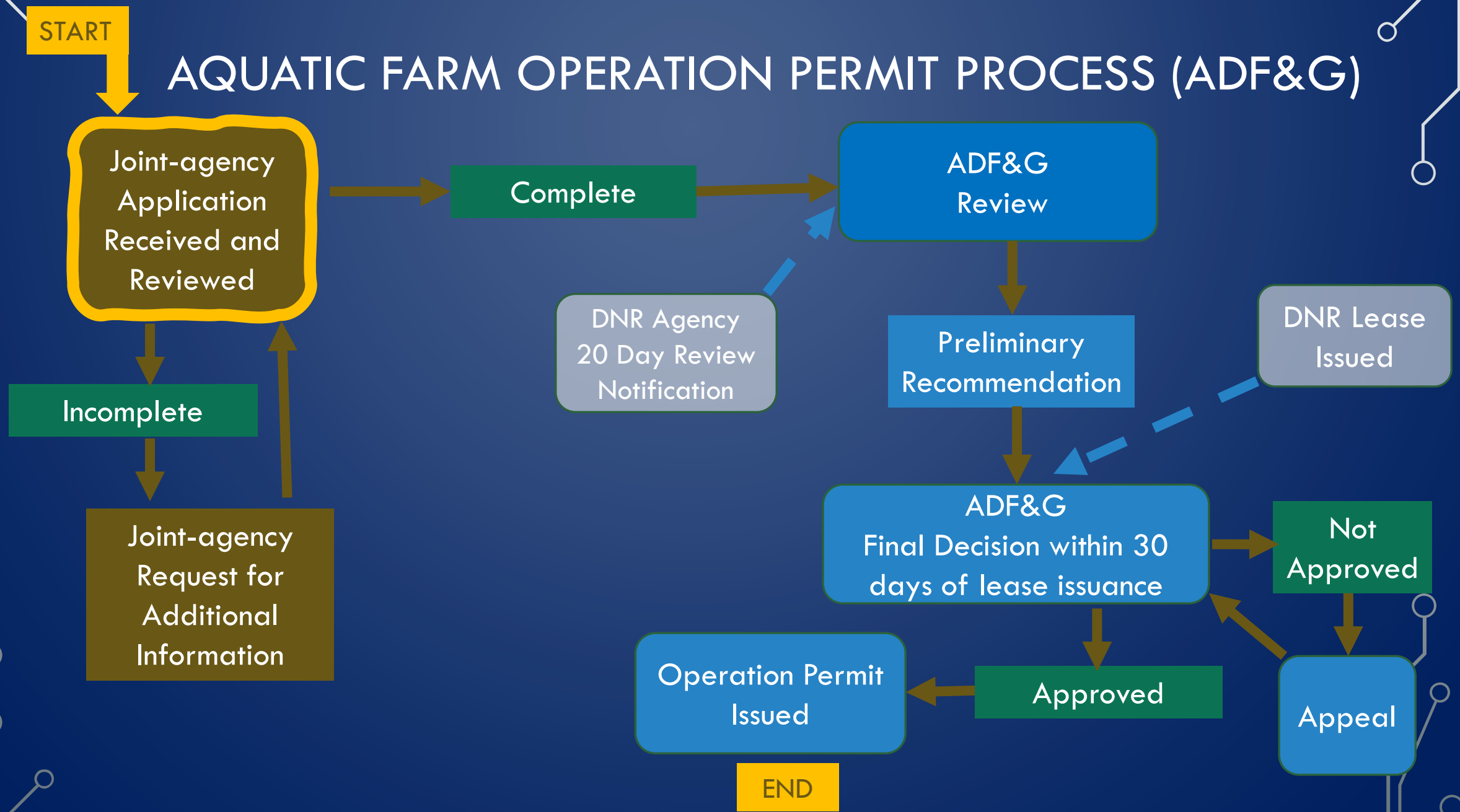
3. **Aquatic Stock Acquisition Permit** (ASP) - 1 year

To collect **wild stock** from outside an aquatic farm site for the purpose of providing broodstock or seed stock to an aquatic farm or hatchery intending to acquire wild stock for culture.

- Fees:** a. if culturing clams an on-bottom survey is needed to assess clam abundance (subtidal - \$5000/day) and intertidal (\$2000/day);
b. renewal or transfer of operation permit (\$100)



AQUATIC FARM OPERATION PERMIT PROCESS (ADF&G)



START

Joint-agency Application Received and Reviewed

Complete

ADF&G Review

DNR Agency 20 Day Review Notification

Preliminary Recommendation

DNR Lease Issued

Incomplete

Joint-agency Request for Additional Information

ADF&G Final Decision within 30 days of lease issuance

Not Approved

Operation Permit Issued

Approved

Appeal

END

WHAT MATERIALS ARE REQUIRED TO APPLY FOR AN AQUATIC FARM OPERATION PERMIT?

1. A COMPLETED JOINT-AGENCY APPLICATION
2. ADDITIONAL DOCUMENTS
 - a. General Location Map (USGS)
 - b. Detailed Location Map (NOAA CHART)
 - c. Site Plan Map
 - d. Cross Sectional Diagram(s)
 - e. Detailed Drawing(s)



**Alaska Aquatic Farm Program
Joint Agency Application – Part II**

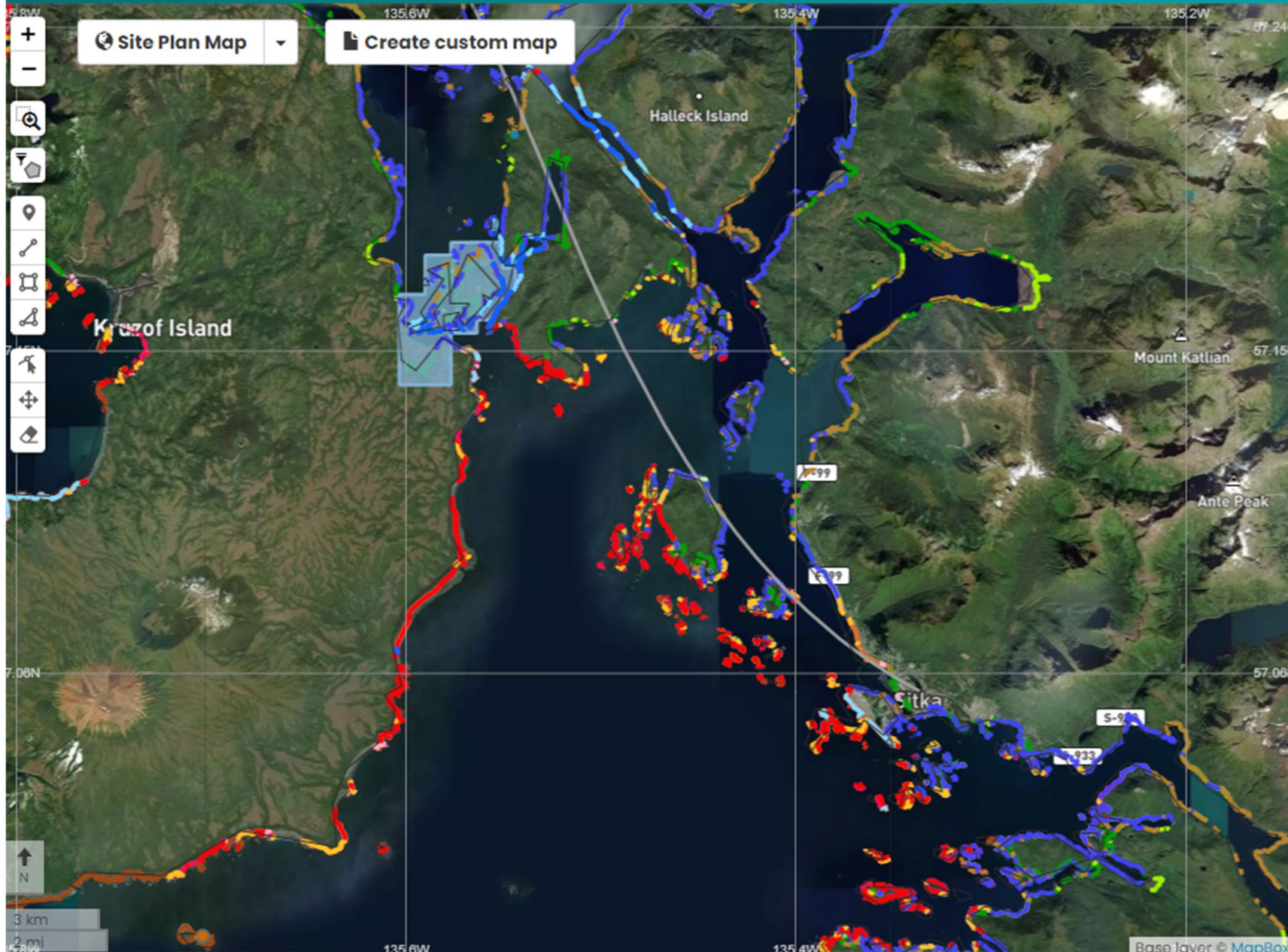
You are encouraged to submit a completed application as early in the filing period as possible. The current application form must be used and properly completed before state agencies can process your project. An incomplete application will not be processed. A checklist is included to assist you in meeting this requirement. The best way to facilitate the review of your application is to schedule a pre-application meeting with ADNR and ADF&G to discuss your project. The original application including attachments and all required fees must be delivered and present in the Alaska Department of Natural Resources office no later than April 30th.

The project location is in: Southeast Alaska Southcentral Alaska
 Kodiak Alaska Peninsula Other

This project is: First Time Application Renewal Application

A. APPLICANT INFORMATION

Name	Contact Name
Business Name (If Applicable)	Contact Phone Number
Mailing Address (PO Box or Street Address)	Business Partner Name (If applicable)
City State Zip	Business Partner Email Address (if applicable)
Email Address	Business Partner Phone (If applicable)
Home/Office Phone	Cell Phone



Site Plan Map Create custom map

- Map navigation controls: zoom in (+), zoom out (-), full screen, location, share, link, print, and other map tools.

Layer Types Legend

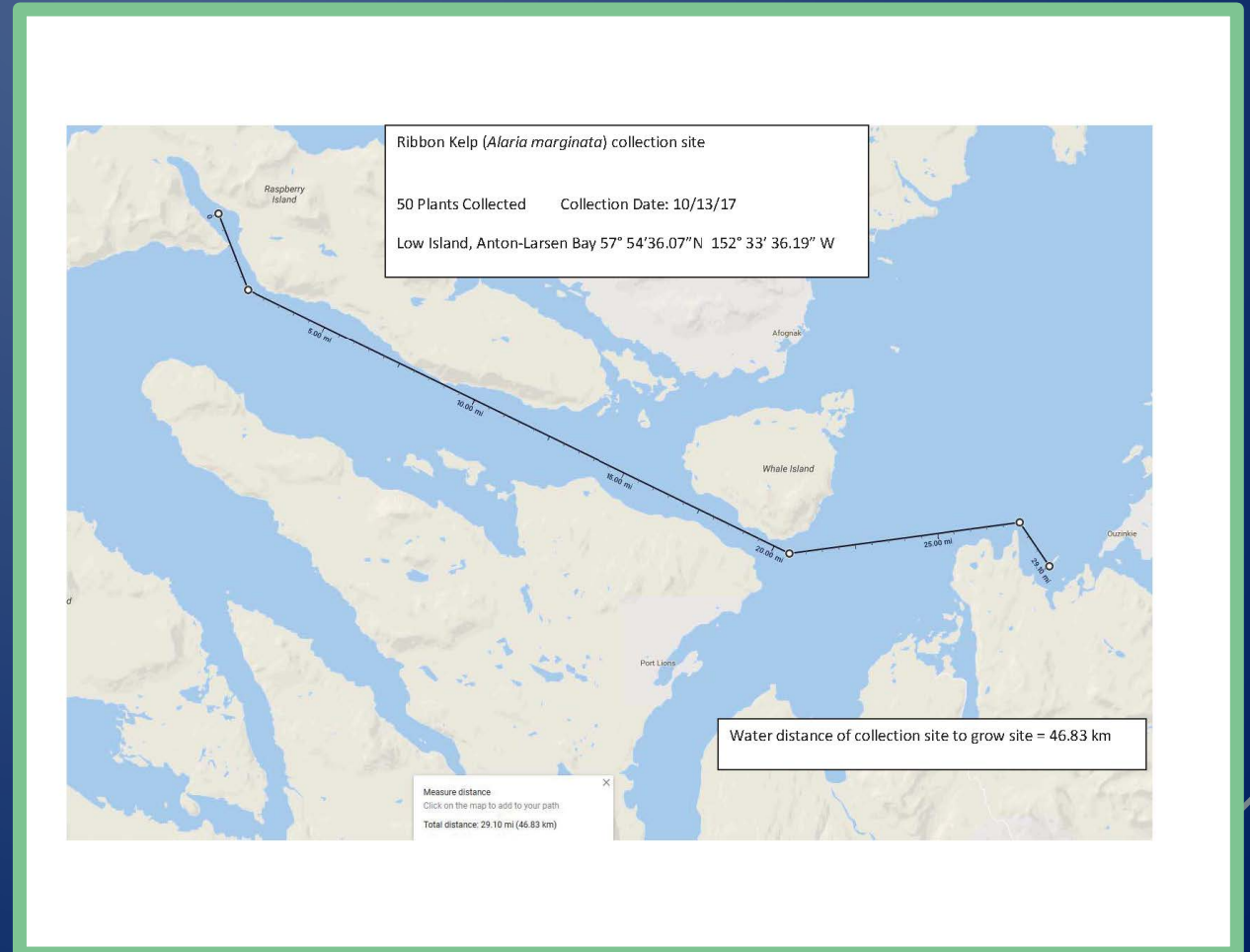
- Layer management options: Minimize all, Hide all.
- Layer 1: Mariculture Biophysical - Seabird Colonies (orange circle icon)
- Layer 2: Environmental Sensitivity Index Map - AK - Pacific Herring Spawning Areas (green square icon)
- Layer 3: Transportation and Energy Infrastructure - Alaska Marine Highway (grey square icon)
- Layer 4: Mariculture Infrastructure - Aquatic Farms (grey square icon)
- Layer 5: Alaska ShoreZone - Kelp Biobands (grey square icon)
- Layer 6: Mariculture Management Areas - Alaska State Game Refuges (grey square icon, Layer hidden)
- Layer 7: Mariculture Management Areas - Alaska State Parks (blue square icon)
- Layer 8: Alaska ShoreZone - Sea Grass Biobands (grey square icon)

APPLICATION PROJECT DESCRIPTION QUESTIONS

- Culture Method
 - Husbandry techniques
 - Maintenance and monitoring
 - Anti-fouling and management of incidental species
 - Snapshot of annual activities
- Culture Gear and Equipment
 - Installation/Removal Schedule
- Seed Acquisition Plan
- Harvest – frequency and methods
- Support Facilities
- Gear storage

CONSIDERATIONS FOR KELP AQUATIC FARMING GENETIC PRECAUTIONARY APPROACH

To minimize the risk of genetic or disease impacts on wild populations, hatchery-cultivated macroalgae seedstock may only be outplanted within 50 km (by water) of the broodstock (parent) collection site.


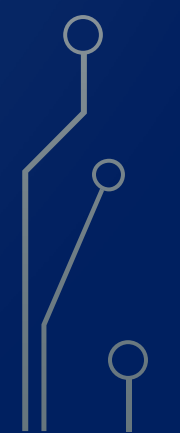




MORE PERMITS!

WHAT ELSE DO YOU NEED AFTER YOU GET YOUR AFOP?



- Check with US Army Corps of Engineers
 - Check with Local Authorities (City and Boroughs/Parks)
 - Check with ADEC
 - F&G Aquatic Stock Acquisition Permit – for wild stock collection to facility
 - F&G Stock Transport Permit – for transport from facility to facility
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OTHER REQUIREMENTS FOR AQUATIC FARMERS

- Annual report is due January 31 each year.
- Any changes to add species, gear, or acreage require an amendment.
- Keep in touch with support groups
 - Alaska Shellfish Growers Association (includes aquatic plant farmers)
 - UAF Sea Grant
 - NOAA
 - Alaska Mariculture Alliance

WHAT IS THE CURRENT BREAKDOWN OF ISSUED AQUATIC FARM PERMITS?

Type	Number	Percent	Acres	Percent
Shellfish Only	32 (43) ↓	37% (49%) ↓	321.19 (345.89)	26% (28%)
Kelp Only	23 (22)	26% (25%)	612.11 (599.06)	50% (49%)
Combination	26 (17) ↑	30% (20%) ↑	297.18 (270.82)	24% (22%)
Hatcheries	6 (5)	7% (6%)	0.19 (0.46)	0%
Total	87 (87)		1230.67 (1216.23)	

2021 numbers are in parenthesis for comparison.

WHERE ARE THE CURRENT AQUATIC FARMS?

Type	Number	Percent	Acres	Percent
Southcentral	29	36%	261.85	21%
Southeast	42	52%	655.54	53%
Westward	10	12%	313.09	25%
Total	81		1230.48	

WHAT IS THE CURRENT BREAKDOWN OF PENDING APPLICATIONS?

Type	Number	Percent	Acres	Percent
Shellfish Only	5	12%	574.21	6%
Kelp Only	31	74%	8207.36*	92%
Combination	6	14%	120.64	1%
Hatcheries	0	0%	0	0%
Total	42		8902.21	

* One application is for 6,740 acres.

WHAT IS THE CURRENT BREAKDOWN OF PENDING APPLICATIONS?

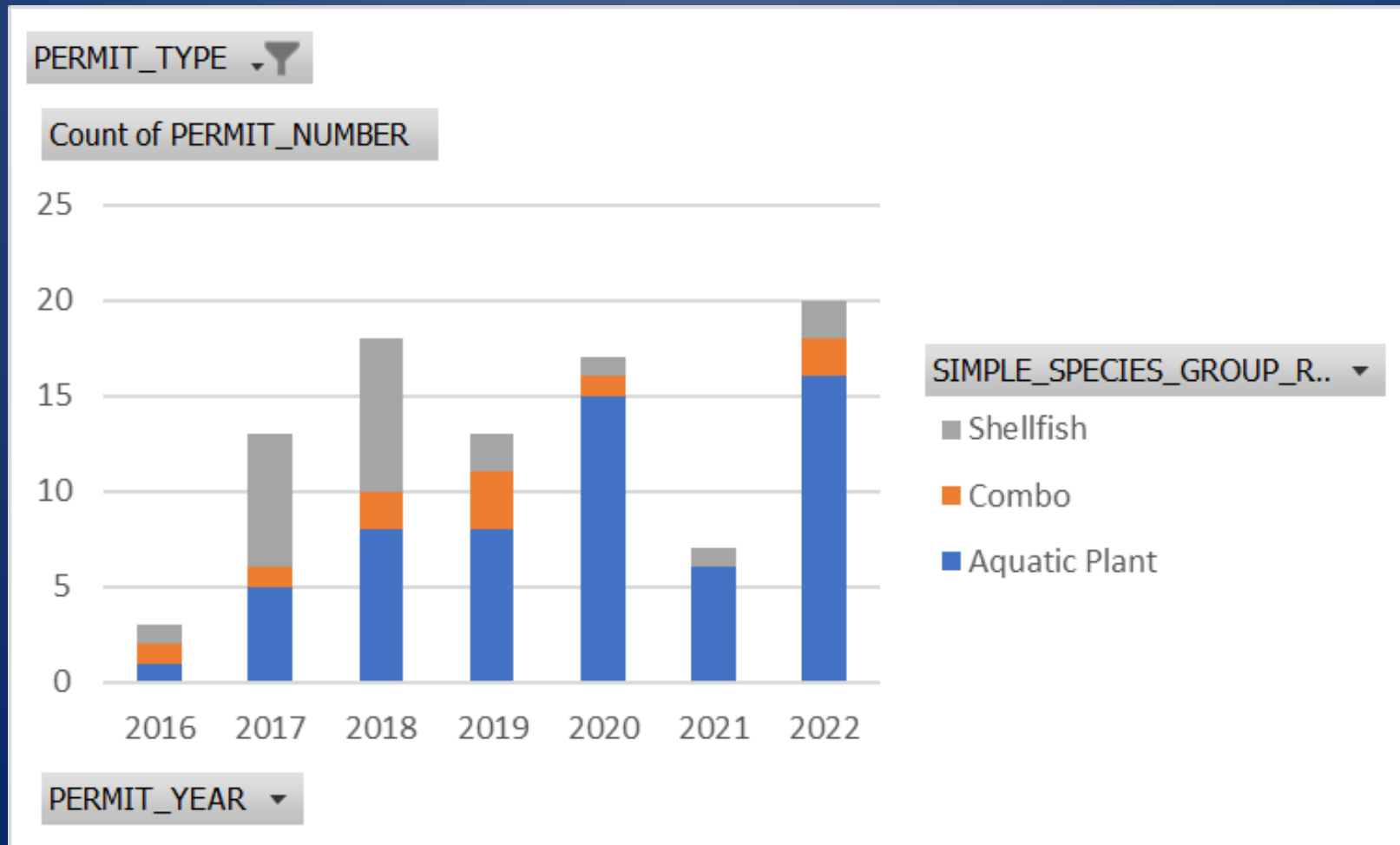
Type	Number	Percent	Acres	Percent
Shellfish Only	5	12%	574.21	27%
Kelp Only	30	73%	1467.78*	68%
Combination	6	15%	120.64	6%
Hatcheries	0	0%	0	0%
Total	41		2162.63	

* With removal of one anomaly.

WHERE ARE THE POTENTIAL AQUATIC FARMS?

Type	Number	Percent	Acres	Percent
Southcentral	15 (7)	36% (24%)	642.02 (278.4)	21%
Southeast	16 (14)	38% (48%)	7,648.6 (683.73)	51%
Westward	11 (8)	26% (28%)	611.59 (375.23)	28%
Total	42 (29)		1337.36	

APPLICATIONS FROM 2016-2022



WHAT IS AN AQUATIC RESOURCE PERMIT?

- Permit required to collect, transport, possess, propagate, export from the state, or release into the waters or lands of the state, any aquatic organisms as part of a program for scientific, educational, or propagative purposes, conservation purposes.

TYPES OF AQUATIC RESOURCE PERMITS

Collection and Holding: to collect, transport, possess species

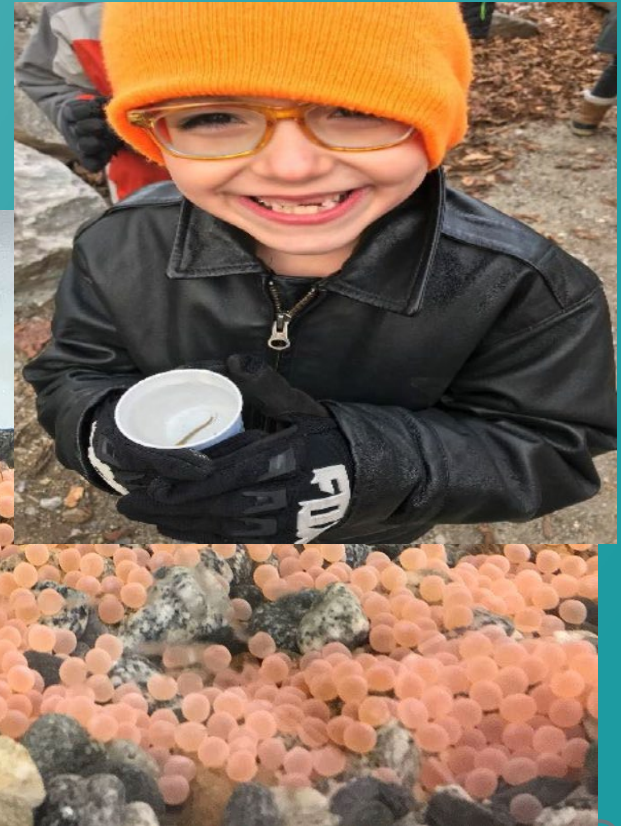
e.g. aquariums, research projects, minnow trapping, beach seine, tagging



TYPES OF AQUATIC RESOURCE PERMITS

Propagative Projects: to collect, transport, spawn and release species

Classroom incubation – up to 500 eggs or one spawning pair



TYPES OF AQUATIC RESOURCE PERMITS

Propagative Projects: to collect, transport, spawn and release species

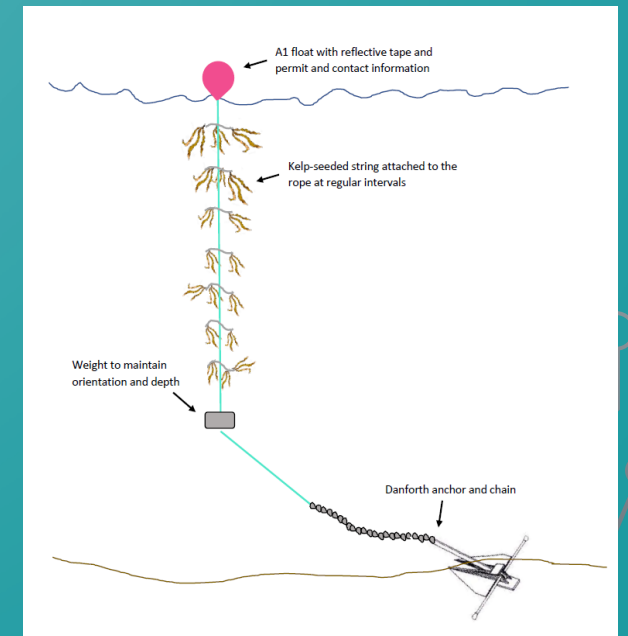
Vocational, technical, post-secondary school – up to 50,000 eggs, or equivalent invertebrate or aquatic plants to meet objectives



TYPES OF AQUATIC RESOURCE PERMITS

Propagative Projects: to collect, transport, spawn and release species

Propagative research – for accredited institutes of higher learning, federal, state, local, or tribal entities to conduct research involving fish, invertebrates, or aquatic plants.



ARP REQUIREMENTS

- Permits are good for one year.
- Collection report and research report due.
- **Anything collected or propagated under an ARP cannot be bartered, traded, sold, consumed!**
- Resultant progeny are common property.
- No propriety rights to site location.
- Oysters can now be used for research purposes!
- Permits and reports are public information.

QUESTIONS?

For additional assistance, please contact:

Aquaculture Section/Division of Commercial Fisheries

Alaska Department of Fish and Game

P.O. Box 115526, Juneau, AK 99811-5526

Aquatic Farming email: dfg.dcf.aquaticfarming@alaska.gov

Aquatic Resource Permit email: dfg.fmpd.permitcoordinator@alaska.gov

(907) 465-4724 - michelle.morris2@alaska.gov

(907) 465-4235 - garold.pryor@alaska.gov

Fax: (907) 465-4168

Aquatic Farming:

<http://www.adfg.alaska.gov/index.cfm?adfg=fishingaquaticfarming.main>

Aquatic Resource Permit:

http://www.adfg.alaska.gov/index.cfm?adfg=otherlicense.aquatic_overview