For Office Use Only	ADNR File No:	ADL 234664	DATE STAMP:	Recv'd 04.28.25 Updated 12.29.25
	ADF&G No:			

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

John Smet
Name

Pacific Kelp Co.
Business Name (If Applicable)

P.O. Box 6361
Mailing Address (PO Box or Street Address)

Ketchikan AK 99901
City State Zip

info@pacifickelp.co
Email Address

[redacted]
Home/Office Phone Cell Phone

John Smet
Contact Name

[redacted]
Contact Phone Number

Nick Stern
Business Partner Name (If applicable)

[redacted]
Business Partner Email Address (If applicable)

[redacted]
Business Partner Phone (If applicable)

B. PROJECT DESCRIPTION

In the space provided below, please provide a general description of your proposed aquatic farm site and operations. This should be a narrative of your proposal that includes where your project will be located, overall size including any hardening area, all species you intend to culture, type of farm gear, equipment, support facilities, and associated housing to be used including size, number, and construction materials. Your narrative should match the rest of the application information you provide. If additional space is necessary, **please attach a separate document labeled "PROJECT DESCRIPTION". Example information for project narrative can be found in Attachment I.**

PROJECT DESCRIPTION

DATE SUBMITTED: 4/30/2025

Company Name

Pacific Kelp Co.

Site Location [*Include water body, distance from nearest community, any landmarks, general region of Alaska, and whether on state tidal and/or submerged lands or private. Provide enough information to understand where it is located.*]

The site location in Southeast Alaska is approximately 27 mi Southeast of Ketchikan, AK. In Felice Strait, northwest of Cat Island, northeast of Duke Island.

Site Dimensions, Acres for Each Parcel

100 acres of total permit area. The total lease area is approximately 1,180 feet wide by approximately 3,691 feet long for a total square feet of approximately 4,355,380

Total Acres of All Parcels

Approximately 100

Species You Intend to Farm [*Include scientific and common species name*]

Macrocystis Pyrifera, Giant Kelp
Saccharina Latissima, Sugar Kelp
Alaria Marginata, Ribbon Kelp
Nereocystis Leutkeana, Bull Kelp

Culture Method [*Describe operation activities to be done onsite such as outplanting of seedstock, husbandry techniques to be used (culling, sorting, washing, etc.), maintenance and monitoring activities, management of fouling organisms and incidental species, predator control measures, and schedule of activities such as timing of outplanting seeded lines or adding seedstock into trays, etc. Describe what methods you plan to use based on the definition in **5 AAC 41.400(6)**. "Culture" means to use or the use of methods to manipulate the biology and the physical habitat of a desired species to optimize survival, density, growth rates, uniformity of size, and use of the available habitat, and to efficiently produce a product suitable for a commercial market.*]

We plan to predominantly cultivate Giant Kelp (Macrocystis Pyrifera) on our proposed farm site, which entails outplanting (seeding), monitoring, and harvesting on site, all year-round. We plan to build one growing array on our farm site, approximately 25 acres in size.

Regardless of which species we cultivate, our plan is to leave our gear in the water year-round. Our farm structure is a catenary farm designed in partnership with Kelson Marine, a leading marine engineering firm.

Kelp sporophytes will be outplanted by unwinding a seeded PVC pipe over the length of a grow rope. We do not anticipate using any husbandry techniques at this time other than basic density management and the monitoring and maintenance of our farm site and seeded lines. We will monitor for for biofouling, marine entanglement, use conflicts and potential impacts to local marine populations. We do not plan to use any predator control measures.

Culture Gear and Equipment (Type, Size, Number, Configuration, Material, and Anchoring System) [*If more than one parcel, indicate what parcel specific gear will be located on. If more than one species, indicate gear to be used for each. Gear includes any structure that holds or protects the organism like trays, tiers of lantern nets, Vexar bags, OysterGro system, grow-out submerged longlines, predator netting, longlines, buoys, depth control systems, etc. Include approximate installation schedule, or if and what gear will remain installed year-round etc.*]

[See attached document]

Seed Acquisition Plan (Commercially produced and/or wildstock) [*Commercially produced juveniles or seed stock must be obtained from an approved seed source. Do you intend to collect wildstock juveniles or natural set organisms for direct culture on your proposed site? Yes/No. If yes, describe collection methods (applicable for indigenous species: i.e. mussels, scallops, abalone, natural set aquatic plants, etc. This does not refer to broodstock collection on behalf of hatcheries for propagation. If increasing number of acquisitions per year, indicate projected amounts per year. Aquatic plant species can be combined into total feet of line per year.]*

We plan to engage with one or several approved seed and hatchery service suppliers within Alaska, such as Mothers of Millions, Lexa Meyer, or Oceans Alaska, to then propagate our seed.

The total linear feet of line to be seeded for cultivation is estimated to not exceed 71,827 ft. The growing array will have no more than 60 lines, ranging from 984 to 1,640' in length.

Harvest Equipment and Method [*Describe harvest equipment and methods to be used, activities to be done onsite, and schedule of harvest of aquatic farm product. If more than one species, include harvest information for each species or group of species like macroalgae if the harvest information is the same.*]

The aquatic site will be operated year round. We plan to harvest multiple times per year by "trimming" the kelp canopy. (up to 4 times per year per individual). In the event that we cultivate a non-canopy kelp species like Saccharina Latissima, we will follow existing industry practices in Alaska and harvest annually in the late winter / early spring. Our plan is to leave our gear in the water year round, regardless of what species is cultivated. No matter what species is cultivated, we will continue to regularly monitor our site and perform regular and preventative maintenance.
In regards to the equipment and methods used, we plan on using a simple knife or other cutting apparatus on a long pole to trim the kelp canopy from the longlines. Given that macrocystis is positively buoyant, we will then collect the biomass that floats to the top of the water with a net or hook and place the trimmed kelp into brailer bags which will then be transported via tender boat to Ketchikan for processing.

"Wet weight yield" will be measured to determine biomass growth rates on site. All canopy trimmings will be collected on site and we will minimize the amount of waste kelp clippings that could enter into the larger environmental area from our farm. All harvesting will be conducted on site as will the transfer of kelp to brailer bags. We do not anticipate any other activities in regards to harvesting/processing to be conducted on site.

Support Facilities (Type, Size, Number, Configuration, Material, and Anchoring) [*Support facilities include caretaker facility, storage rafts, work rafts, processing rafts, etc.*]

We do not plan on constructing or utilizing support facilities on our site. All equipment storage and kelp biomass warehousing and processing will be conducted on private property and not on state lands or waters.

Access to and from Site [*Include nearest community, transportation type used and how many times traversing back and forth*]

Our proposed site is a 60 minute boat ride from Ketchikan (one way) and is accessible via boat on the inside passage. We plan to launch a 20-30ft skiff from Ketchikan South Tongass Launch Ramp or a local area harbor to monitor our farm site at least once per week (weather permitting) – although likely at a higher frequency. We may also monitor our permitted area through contracted agreements with local operators or companies.

Storage Location of Equipment and Gear When Not in Use [*Include whether on private lands and nearest community*]

We plan to store our equipment and gear on private property near Ketchikan. We do not plan to store any equipment or gear on state lands or waters.

C. PROJECT OPERATION PLAN

1. How will support facilities, culture gear and anchoring systems be maintained?

a. How often, in days per month, do you intend to monitor your site for things such as adequate anchoring, disease, exotic species settlement, fouling, gear drift, snow load, wind damage, vandalism, etc.?

Growing season 4 (days/month) **Off months** 0 (days/month)

b. How will you keep the gear and shellfish free of fouling organisms (hot-dip, air dry, pressure washing, etc.)?

Washing or removal by hand.

c. How will you manage reduction of competing species over the course of operations (relocate sea stars, grow-out cages, or other possible protection from competing species)?

We will consult industry and environmental experts on best management practices with the least environmental impact and employ those methods only if necessary.

d. If you intend to use predator netting, how long will you keep netting over your product?

N/A (months)

e. If using predator netting, how will you minimize impacts on non-target species, including seabirds, seals, sealions, walrus and whales?

N/A

2. Projected Harvest Rotation Consistent with Life History

a. How often do you intend to harvest your product by species?

We expect to harvest macrocystis up to 4x / year. Other species 1x per year.

b. Do you plan on utilizing density manipulation by culling or redistribution?

We may reduce the density of plants to maximize biomass yield if we deem it necessary. In the event that we need to reduce the density of planting on our farm in a given area we would perform that manually using a knife or other cutting apparatus in only the specified area.

c. What techniques will be used to optimize growth or condition of product?

We will optimize kelp growth and growing conditions by adjusting the growline density, along with harvesting and planting frequency and timing. Lastly, we will maintain a clean and sustainable farm site to ensure the best growing conditions.

3. Acquisition of hatchery or wild seed

a. Will you use a certified or approved shellfish seed source(s)? **Yes** ☐ **No** ☒

b. Will you use an Alaska kelp hatchery? **Yes** ☒ **No** ☐

c. How do you intend to collect wild seed? (Applicable for indigenous species: i.e. clams, natural set kelp, invertebrates, etc.)

N/A

4. Describe how operation of the aquatic farm will improve the productivity of species intended for culture not covered by the previous questions (examples: predator exclusion, reduction of competing species, density manipulation by culling/redistribution, importing natural or hatchery seed, program harvest to optimize growth/condition and habitat improvement)?

We plan to plant at optimal density (plants / grow line and also number of grow lines per acre) to achieve maximum yield per given acre. We plan to harvest only after plants have had sufficient time in water to achieve sufficient biomass growth.

D. PROJECT LOCATION

1. Coordinates

Please provide latitude and longitude coordinates for each corner of each parcel at the proposed farm site. Identify each parcel to be used. For example, Parcel 1 - growing area, Parcel 2 - hardening area, etc. Latitude and longitude coordinates must be in **NAD83 datum using degrees and decimal minutes format to the nearest .001 minute (Example: Longitude -133° 17.345)**, obtained using a Global Positioning System (GPS). If you are applying for more than three parcels or your proposed parcels have other than four corners, please provide those coordinates in your project description or on a separate sheet.

Parcel 1: Total Lease Area (e.g. Grow-out Area)	NE Corner No. 1: Latitude 55°2.526	Longitude -131°15.852
	SE Corner No. 2: Latitude 55° 2.358	Longitude -131° 15.666
	SW Corner No. 3: Latitude 55° 2.046	Longitude -131° 16.524
	NW Corner No. 4: Latitude 55° 2.202	Longitude -131° 16.716
Parcel 2: _____ (e.g. Hardening Area	NE Corner No. 1: Latitude _____	Longitude _____
	SE Corner No. 2: Latitude _____	Longitude _____
	SW Corner No. 3: Latitude _____	Longitude _____
	NW Corner No. 4: Latitude _____	Longitude _____
Parcel 3: _____ (e.g. Support Facility Area)	NE Corner No. 1: Latitude _____	Longitude _____
	SE Corner No. 2: Latitude _____	Longitude _____
	SW Corner No. 3: Latitude _____	Longitude _____
	NW Corner No. 4: Latitude _____	Longitude _____

2. Site Size

Please use the following formula to compute area. For more complex parcel shapes, you may wish to use the Measure Area tool in Alaska Mapper found at https://mapper.dnr.alaska.gov/. If you are applying for more than three parcels or your parcels are not rectangular, you may provide this information in the project description or on a separate sheet.

1. To compute the total area (sq. ft), multiply the width (ft) by the length (ft) of Parcel 1. The outside length and width of the Parcel **must include your anchors and anchoring system plus any scope**.
2. Divide the area (sq. ft) of Parcel 1 by 43,560, to convert the area from sq. ft to acres.
3. Repeat for each separate Parcel of your proposed farm site.
4. Add the acreage of each Parcel to get the total tideland acreage for your proposed farm site.
5. Write the Total Acreage on the line where indicated.
6. Note that the number of acres must correspond to your farm site maps and drawings.

Parcel 1: 1,180 (Width of Parcel 1) feet (x) 3691 (Length of Parcel 1) feet = 4,355,380 (Area) square feet (÷) 43,560 = 100 (Acres)

Parcel 2: _____ (Width of Parcel 2) feet (x) _____ (Length of Parcel 2) feet = _____ (Area) square feet (÷) 43,560 = _____ (Acres)

Parcel 3: _____ (Width of Parcel 3) feet (x) _____ (Length of Parcel 3) feet = _____ (Area) square feet (÷) 43,560 = _____ (Acres)

How many total acres of state-owned tidelands are you applying for (add all parcel acres): 100 **(Total Acreage)**

If you are **also** applying for **state owned uplands for support facilities**, how many total upland acres? _____ **(Total Upland Acreage)**

3. Maps and Diagrams

Provide copies of maps and diagrams including general and detailed location maps, site plan map (an overview), cross-sectional diagram and detailed drawings. If the project has multiple parcels, you must provide maps of each parcel. Copies of the maps and drawings should be no larger than 8½" x 11" (standard letter size). Examples are provided at the end of the application.

A list of mapping resources is provided below:

Alaska Mapper	https://mapper.dnr.alaska.gov/
Alaska Ocean Observing System Mariculture Map	https://mariculture.portal.aoos.org/
NOAA Nautical Charts	www.charts.noaa.gov
ShoreZone Mapping System	https://www.fisheries.noaa.gov/alaska/habitat-conservation/alaska-shorezone
Catalog of Anadromous Streams	https://www.adfg.alaska.gov/sf/sarr/awc/

***Be sure to include a legend box on all maps and diagrams you provide with your application with the following information:**

FORMATTING	LEGEND BOX EXAMPLE
Figure No. and Title	Figure 1 Detailed Location Map
Applicant Name (Business Name)	Alaska's Best Oysters
Waterbody	Jerryton Bay
Area/Region	East of Prince of Wales Island, Southeast AK
Today's Date	March 30, 2012

a. **General Location Map** - This map is a larger scaled map showing larger surrounding area with less detail (See Attachment 2, Figure 1). Use a USGS Topographic quadrangle map (scale: 1" = one mile (1:63,360)) and label it "Figure 1" and show the following information:

- ☐ USGS Map Name (e.g. Craig B-4) _____
- ☐ General location of the farm site
- ☐ Distance (in nautical miles), and direction (arrow) of the site from the nearest community
- ☐ A directional arrow identifying North
- ☐ Scale
- ☐ Legend box (example on previous page)

b. **Detailed Location Map** - This map is a smaller scaled map showing more detail (See Attachment 2, Figure 2). Use a National Oceanic and Atmospheric Administration (NOAA) navigational chart and label it "Figure 2" and show the following information:

- ☐ NOAA Chart No. _____
- ☐ Boundaries of each farm area parcel and clearly label all corners (NE, SE, SW, and NW)
- ☐ Directional arrow identifying North
- ☐ Scale on map
- ☐ Legend box (example on previous page)

  If uplands area is proposed:
  - ☐ Location and type of use (e.g. housing, storage shed, etc.)

c. **Site Plan Map** - Draw an overhead view of the farm area parcel(s) and surrounding area (See Attachment 2, Figures 3 and 4). Label it "Figure 3" and show the following information:

- ☐ All in-water structures and anchoring systems (All anchoring systems and anchor scope have to be <u>inside</u> the farm parcel boundary)
- ☐ All equipment and support facilities with dimensions (in feet)
- ☐ Areas of eelgrass beds (intertidal zone)
- ☐ Areas of kelp beds (subtidal zone)
- ☐ Fuel and chemical storage
- ☐ Nearby anadromous streams (fish)
- ☐ Distance between all facilities, gear or equipment on the proposed farm site
- ☐ Legend box (example on previous page)

d. **Cross-Sectional Diagram(s)** - Provide Cross-Sectional Diagram(s) of all support facilities, equipment, and gear showing their placement and anchoring systems (See Attachment 2, Figure 5). Note that more than one diagram may be required. Label it "Figure 5" (and so on) and show the following information:

- ☐ Distance from bottom of gear to ocean bottom at mean lower low tide

  If suspended or on-bottom culture:
  - ☐ water depth at low tide
  - ☐ major on-bottom physical features (sand, mud, silt, clay, bedrock, cobble, shells, rockweed, algae/seaweed) and contours
- ☐ Dimensions of the anchoring configuration and poundage
- ☐ Scale
- ☐ Legend box (example on previous page)

e. **Detailed Drawing(s)** - Provide Detailed Drawing(s) of all support facilities, equipment, and gear (See Attachment 2, Figure 5). Note that more than one diagram may be required. Label and show the following information:

- ☐ Draw and label the dimensions (length/width/height) of all proposed gear and equipment
- ☐ Legend box (example on previous page)

E. SITE SUITABILITY – PHYSICAL AND BIOLOGICAL CHARACTERISTICS

1. Is the proposed location protected from severe storms, strong currents, winter ice, etc. and if not, is the farm designed for extremes?
   Yes ▣ **No** ☐ Additional Information Designed by a professional engineering firm to withstand 25 year storm
2. Does your site have suitable water exchange for species of culture? **Yes** ☑ **No** ☐
3. Are water temperatures suitable for proposed species of culture? **Yes** ☑ **No** ☐
   (Note: temperatures > 60° and < 31° F may pose problems such as Vibrio bacteria contamination or icing.)
4. Is there any significant freshwater influence near the farm? **Yes** ☐ **No** ☑
   (Note: freshwater may impact shellfish growth and/or survival or carry fecal coliform or other pollutants)
5. Is the salinity concentration at your proposed farm site appropriate for species of culture? **Yes** ☑ **No** ☐
6. Have you monitored the phytoplankton (microalgae) abundance and types during the main grow-out season?
   Yes ▣ **No** ☐ **If yes, findings**: No issue with phytoplankton blooms.
   (Note: shellfish depend on phytoplankton for food, but harmful phytoplankton can prevent harvest/sales.)
7. Have you monitored suspended sediments or turbidity (e.g. water clarity/transparency using a secchi disc) at your proposed farm site? **Yes** ☑ **No** ☐ **If yes, findings**: Secchi disk visibility to 20 feet
   (Note: This is used as rough check for microalgae densities, run-off, and glacial silt (milky- grey color).)
8. For on-bottom culture, are the bottom characteristics suitable for the proposed species? **Yes** ☐ **No** ☐
   Substrate and vegetation? N/A
9. For on-bottom culture, how will bottom characteristics be made suitable if not already?
   N/A
10. For suspended culture, is the water depth sufficient to prevent gear from grounding and impacting the benthos under floating structures? Depth of Gear (in ft): 25 Water depth at low tide (in ft): 114
11. Is your proposed site more than 300 ft from an anadromous fish stream? **Yes** ☑ **No** ☐
12. Are you aware of any eelgrass or kelp beds on or near your proposed farm site? **Yes** ☐ **No** ☑ If yes, describe:

13. For farming using on-bottom culture methods, is there insignificant wild stock of the species to be cultured on the proposed farm site? (Reference 5 AAC 41.235) **Yes** ☐ **No** ☐ Additional information
    N/A

14. Are there existing uses near your proposed farm site such as boat traffic, existing fisheries or a sensitive area as listed in section C of Part 1, etc. that may be impacted by the farm operation? **Yes** ☐ **No** ☑ If yes, describe how your farm can be sited to mitigate conflicting uses?
    N/A

F. KNOWN EXISTING USES

Please check the boxes below, to indicate existing human and/or wildlife uses observed or known to exist at or within one mile of the proposed farm site. Indicate the locations of these existing uses on the Site Plan Map if specific locations are known (refer to page 8, Section 3c).

- ☐ mining
- ☐ timber harvest or transfer
- ☐ residential use
- ☐ harbor development
- ☐ sheltered boat anchorage
- ☐ seaplane landing
- ☐ commercial lodges
- ☐ sightseeing
- ☒ recreation
- ☐ tourism
- ☐ historical/cultural/archaeological site
- ☐ other aquatic farm projects
- ☐ commercial fishing
- ☐ sport fishing
- ☐ salmon hatcheries
- ☐ hunting
- ☐ seafood processing plant
- ☐ upland access route(s) areas, bear trails, etc.
- ☐ wildlife use, (e.g. shorebirds, sea mammal haul-outs)
- ☐ subsistence; list species and frequency

_____

☐ navigational channels: _____

☐ other; list _____

G. SUPPORT FACILITIES

1. Personnel/Caretaker Housing (additional annual fees apply)
   Are you proposing any personnel/caretaker housing? **Yes** ☐ **No** ☒

   If yes, the proposed size will be: _____ (Width) _____ (Length) _____ (Height)
   Please attach diagrams/drawings with labels clearly showing the Personnel/Caretaker housing.

   Note: you may stay a maximum of 14 consecutive days at your site on state-owned uplands or tidelands without applying for personnel/caretaker housing.

2. Enclosed Processing Facility
   Are you proposing any enclosed processing facility? **Yes** ☐ **No** ☒

   If yes, the proposed size will be: _____ (Width) _____ (Length) _____ (Height)
   Please be sure the processing facilities are included in the maps and diagrams described in the Maps and Diagrams section above.

3. Upland Property
   Do you currently own or lease upland property adjacent to, or near, the proposed farm site that you plan to use in conjunction with your proposal? **Yes** ☐ **No** ☒ **If yes**, attach a copy of ownership deed or lease.

   If you are the adjacent upland owner, are you applying for a preference right under 11 AAC 63.040(f)?
   Yes ☐ **No** ☐

H. CITY AND BOROUGH CONTACTS

1. City/Borough Authorization
   If you are applying within a city or borough, please contact the appropriate authority as additional authorizations may be required from them. Please provide the name, address, and telephone number of the person(s) you contacted and list any required authorizations.

	CITY/BOROUGH	PHONE	CONTACTED?
☐	City of Cordova	907-424-6220	**Yes** ☐ **No** ☐
☐	City of Klawock	907-755-2261	**Yes** ☐ **No** ☐
☐	City and Borough of Wrangel	907-874-2381	**Yes** ☐ **No** ☐
☐	City of Craig – Planning & Zoning	907-826-3275	**Yes** ☐ **No** ☐
☐	City and Borough of Juneau – Permit Center	907-586-5252	**Yes** ☐ **No** ☐
☐	City and Borough of Sitka – Planning & Community Development	907-747-1814	**Yes** ☐ **No** ☐
☐	City of Thorne Bay	907-828-3380	**Yes** ☐ **No** ☐
☐	City and Borough of Yakutat – Planning & Zoning Commission	907-784-3323	**Yes** ☐ **No** ☐
☐	Kenai Peninsula Borough – Land Management Division	907-714-2205	**Yes** ☐ **No** ☐
☐	Kodiak Island Borough – Community Development	907-486-9363	**Yes** ☐ **No** ☐
☐	Lake and Peninsula Borough – Community Development	907-246-3421	**Yes** ☐ **No** ☐
☐	Aleutians East Borough – Permitting	907-383-2699	**Yes** ☐ **No** ☐
☑	Ketchikan Gateway Borough – Planning & Community Development	907-228-6610	**Yes** ■ **No** ☐
☐	Haines Borough	907-766-6401	**Yes** ☐ **No** ☐

Type of Authorization required by City or Borough: _____

I. WATER QUALITY INFORMATION – Department of Environmental Conservation

1. Do you plan to use a boat on your farm site? **Yes** ☑ **No** ☐ **If yes**, indicate the type of marine sanitation device. No biological waste will be produced or discharged on site.

2. If you plan to have personnel housing or caretaker facilities:
   Will wastewater be discharged from these facilities? **Yes** ☐ **No** ☑ If yes, what are the daily maximum and average discharge volumes? Maximum _____ Average _____

3. Were there any sources of past pollution at the site, such as a shore-based seafood processor, log transfer facility, industrial facility, oil spill contamination, or town or village? **Yes** ☐ **No** ☐ **Unknown** ☑
   If yes, identify:
   a. The type of previous use (e.g. mine, village, seafood processor, oil spill).
      N/A
   b. The last known date of use. N/A
   c. The distance from site previously used to your proposed site.
      N/A

4. Are you aware of any current potential sources of human or industrial pollution in the area? (e.g. sewage outfalls, oil contamination, industrial transfer facilities upland operations, boar harbors, etc.)
   Yes ☐ **No** ▣ **If yes**, describe:
   a. The type of discharge(s).
      N/A

   b. The location and distance from your site.
      N/A

   c. The name of the discharger(s), if known.
      N/A

5. Are you aware of any other planned development in the general area of your proposed site?
   Yes ☐ **No** ▣ **If yes**, describe the planned development.

6. ADEC <u>may</u> request that you provide a map for certain projects to show the following information:
   a. areas of wastewater disposal systems, including both sewage and grey water discharge points (grey water means domestic wastewater from laundry, kitchen, etc., which does not contain human waste)
   b. location of drinking water, including drinking water wells or other drinking water system sources (fresh water and salt water), within 200 feet of any proposed or existing wastewater disposal systems
   c. location of solid waste storage and disposal sites (Note: you are encouraged to use existing permitted sites for the disposal of solid wastes. If there are not any existing permitted disposal sites in the area and they are necessary in your operation, you must contact the ADEC for authorization)
   d. areas used for fuel and chemical storage

J. APPLICATION SIGNATURE BLOCK

AQUATIC FARM APPLICATION SIGNATURE AND PROGRAM CERTIFICATION STATEMENT

The information contained in this aquatic farm application is true and complete to the best of my knowledge and I certify that the proposed activity complies with and will be conducted in a manner consistent with all State and Federal Agency policies and regulations. I understand that modifications to the proposed activity may require additional review and that I may need to apply for additional authorizations.

This certification statement does not provide authorization necessary to sell my product. I understand I must separately apply for and hold a Growing Area Certification and a Shellfish Harvester or Shellfish Dealer Permit from the Department of Environmental Conservation.

Printed Name JOHN SMET

Signature of Applicant _____ **Date** 4/16/2025

Printed Name _____

Signature of Applicant _____ **Date** _____

☑ **I have enclosed the application fee required under 11 AAC 05.230(d)(3)(A)**

In submitting this form, the applicant certifies that he or she has not changed the original text of the form or any attached documents provided by the Division. This information is made a part of the state public land records and becomes public information under AS 40.25.110 and 40.25.120 (unless the information qualifies for confidentiality under AS 38.05.035(a)(8) and confidentiality is requested, AS 43.05.230, or AS 45.48). Public information is open to inspection by you or any member of the public. A person who is the subject of the information may challenge its accuracy or completeness under AS 44.99.310, by giving a written description of the challenged information, the changes needed to correct it, and a name and address where the person can be reached. False statements made in an application for a benefit are punishable under AS 11.56.210. In submitting this form, the applicant agrees with the Department to use "electronic" means to conduct "transactions" (as those terms are used in the Uniform Electronic Transactions Act, AS 09.80.010 - AS 09.80.195) that relate to this form and that the Department need not retain the original paper form of this record: the department may retain this record as an electronic record and destroy the original.

Project Narrative:

The proposed aquatic farm lease is one parcel totaling 100 acres of state owned tidal and submerged lands and is located in Felice Strait in Southeast Alaska in waters 70 – 150' deep.
Our plan is to construct a cultivation system, ~50 acres in size inclusive of the anchor system, within the ~100 acres of lease area. We plan to predominantly cultivate Giant Kelp (Macrocystis Pyrifera) on our proposed farm site, which entails outplanting (seeding), monitoring, and harvesting on site.

Our cultivation array has been designed in partnership with Kelson Marine, a leading marine engineering firm and is a catenary design. We will install approximately 71,827 feet of growline on our catenary array, which will be deployed at approximately 25 to 30 feet of depth, MLLW. Our array will have 60 lines, ranging from 984 to 1,640 ft in length. Given that our species is positively buoyant, each of the lines will have up to 5 weights on it, spaced evenly apart, to counteract the buoyant nature of the kelp.
Environmental loads on open ocean structures are driven by current, waves, water levels and wind.

Kelson Marine's characterization of these meteorological and oceanographic ("metocean") variables and their extreme values conforms to NS 9415:2021 (Standards Norway, 2022). To ensure a conservative analysis, and to comply with guidance from the relevant permitting agencies for this project, the 25-year storm condition was taken to be the design standard for the present study and incorporated relevant wind, current, waves, tides and varying water level data to ensure structural integrity across a range of environmental scenarios and stresses. Much of Kelson Marine's work conforms with industry standards and catenary arrays are common practice in the cultivation of macroalgaes.

Harvest will occur up to 4 times per year by 'trimming' the top canopy of the kelp. Kelp trimmings will then be collected and stored in floating brailer bags, which will then be towed back to the dock for further processing. All processing will occur on private property. The only activities to occur on state-owned tidal and submerged lands will be gear installation, maintenance & monitoring, outplanting, and harvesting. Gear will remain in the ocean year-round.

CULTURE GEAR & EQUIPMENT

(Additional Detail for Application Question due to space constraints)

Array size: 1,066 ft x 2,113 ft total

Type	Size*	Qty	Material	Anchoring System
High-scope drag embedment moorings	10,000 - 30,000 lbs	6	Steel	N/A
Anchor Chain	3.27 in diameter	6	Steel	High-scope drag embedment moorings
Anchor Line	3.78 in diameter	6	Fiber rope (e.g. UHMWPE)	High-scope drag embedment moorings
Corner Float	13.1 ft diameter	6	Polyethylene foam	High-scope drag embedment moorings
Tensioning Floats	9.25 gallon	6	Plastic	High-scope drag embedment moorings
Tensioning Float Tether	1.1 in diameter	6	Fiber rope (e.g. polypropylene)	High-scope drag embedment moorings
Header Line	3.78 in diameter	2	Fiber rope (e.g. UHMWPE)	High-scope drag embedment moorings
Growline-Inner	.87 in diameter	58	Fiber rope (e.g. polyester)	High-scope drag embedment moorings
Growline-Edge	.87 in diameter	2	Fiber rope (e.g. polyester)	High-scope drag embedment moorings
Growline Float	26.4 gallon	300	Polyethylene shell, foam-filled	High-scope drag embedment moorings
Weights	252 lb	300	Concrete	High-scope drag embedment moorings
Growline Float Tether	.87 in diameter	300	Fiber rope (e.g. polyester)	High-scope drag embedment moorings
Transverse Set Line	3.78 in diameter	1	Fiber rope (e.g. UHMWPE)	High-scope drag embedment moorings

Figure 1: General Location Map

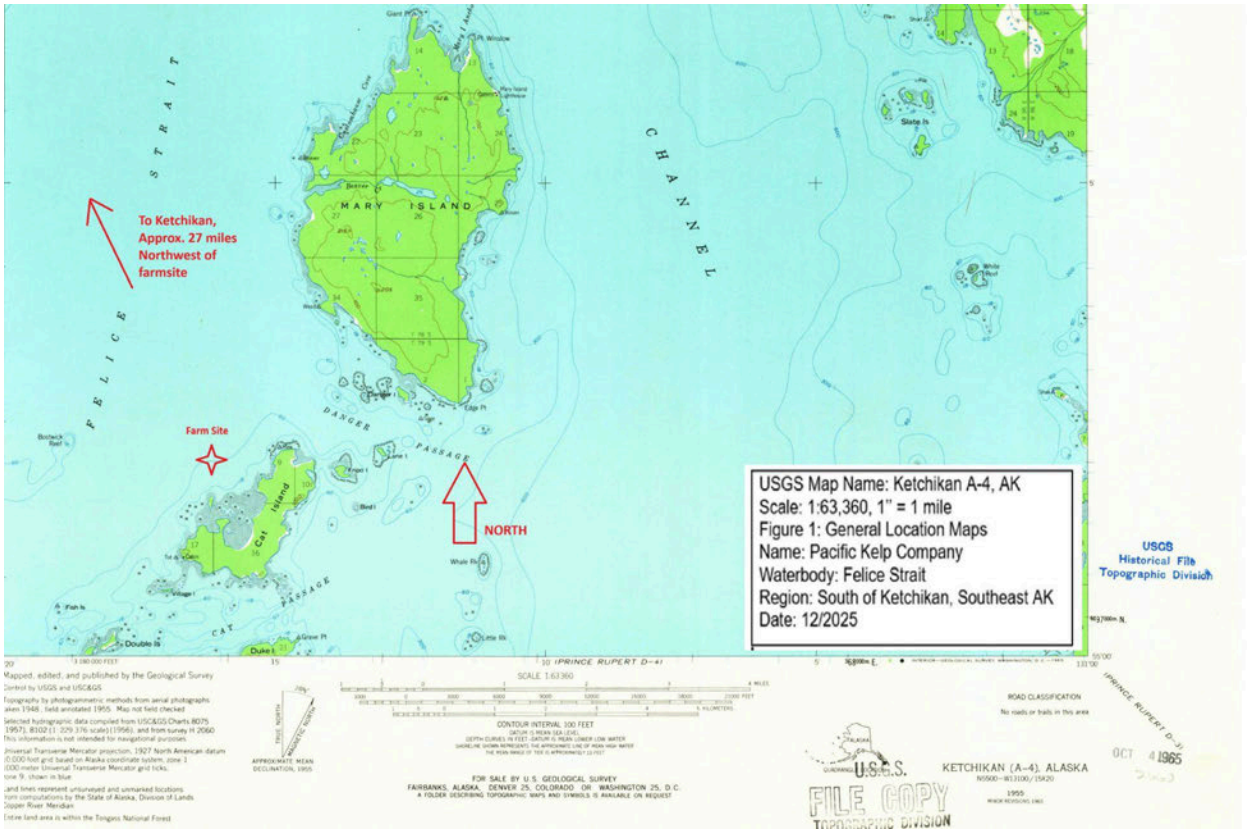
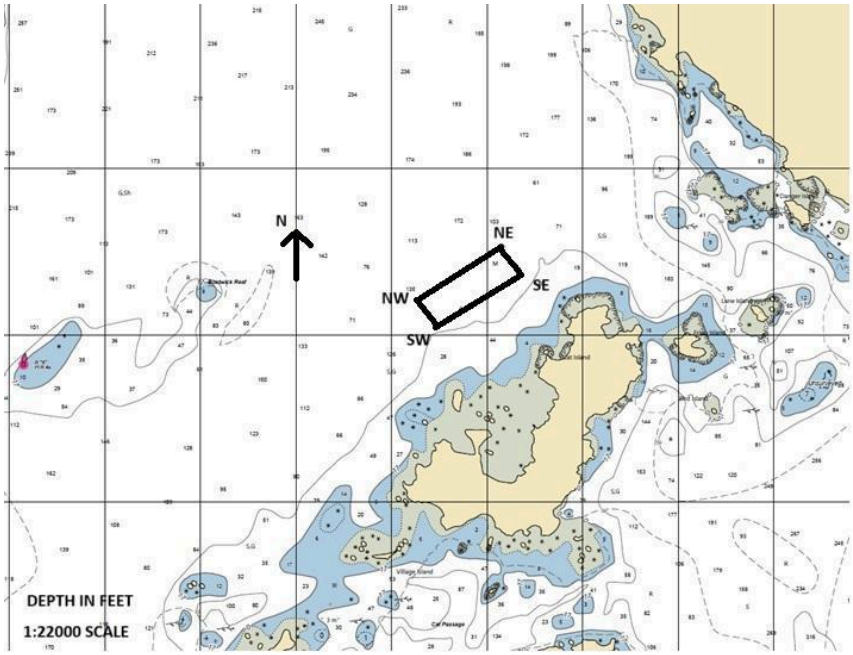
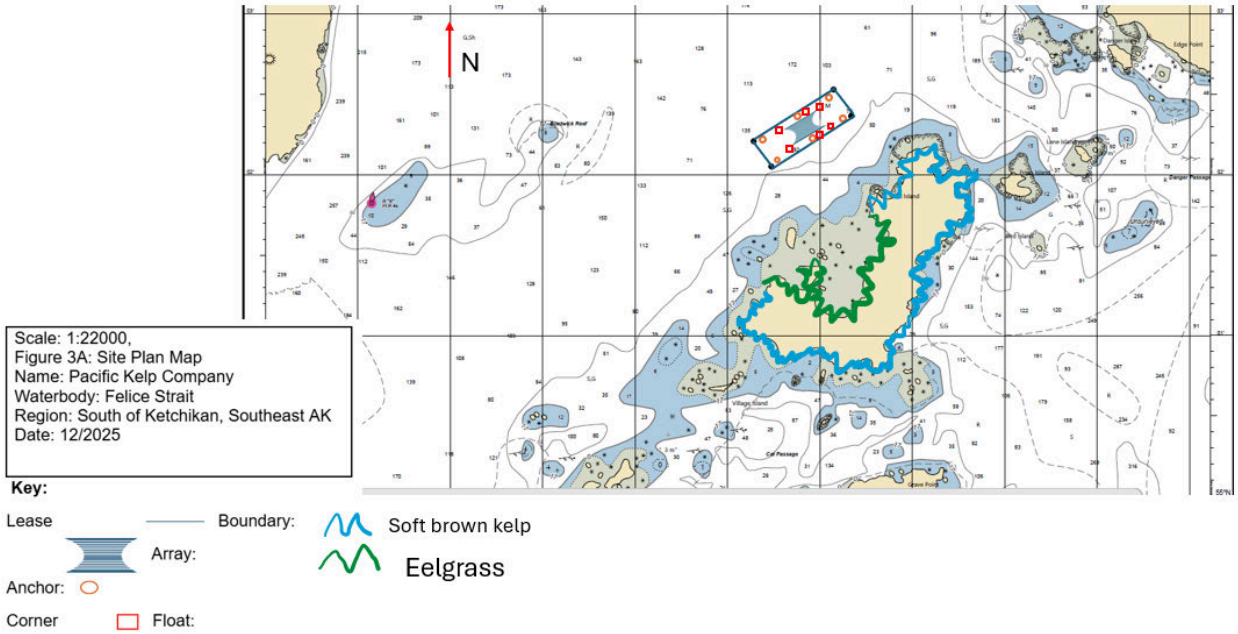


Figure 2: Detailed Location Map, NOAA Chart No. US4AK5GP



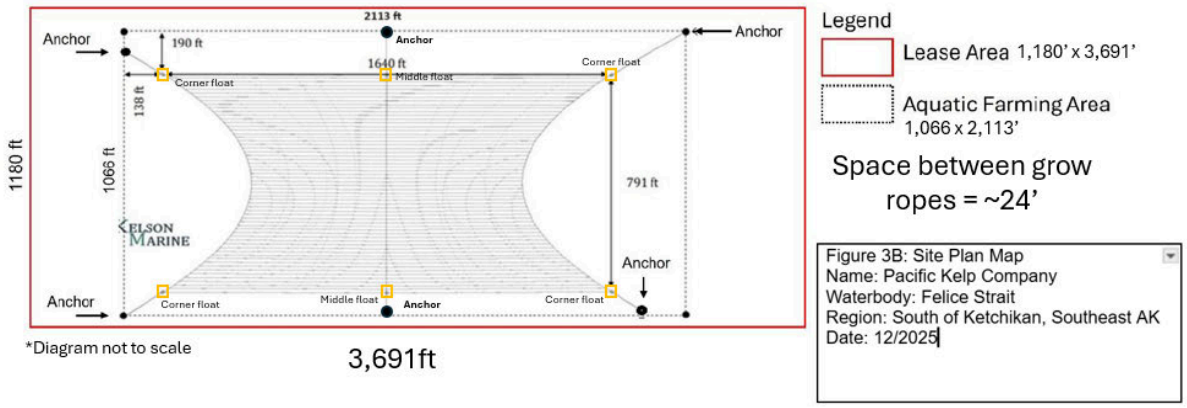
Scale: 1:22000,
Figure 2: Detailed Location Maps
Name: Pacific Kelp Company
Waterbody: Felice Strait
Region: South of Ketchikan, Southeast AK
Date: 4/2024

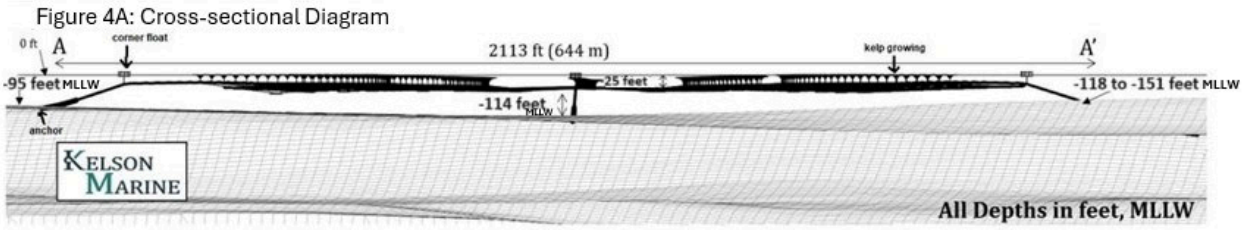
Figure 3A: Site Plan Map



Site plan view at a 1: 22000 scale of the cultivation system. The approximate location of anchors, corner buoys, and line elements are shown. Not to scale.

Figure 3B: Site Plan Map Supporting Projection Diagram Dimensions

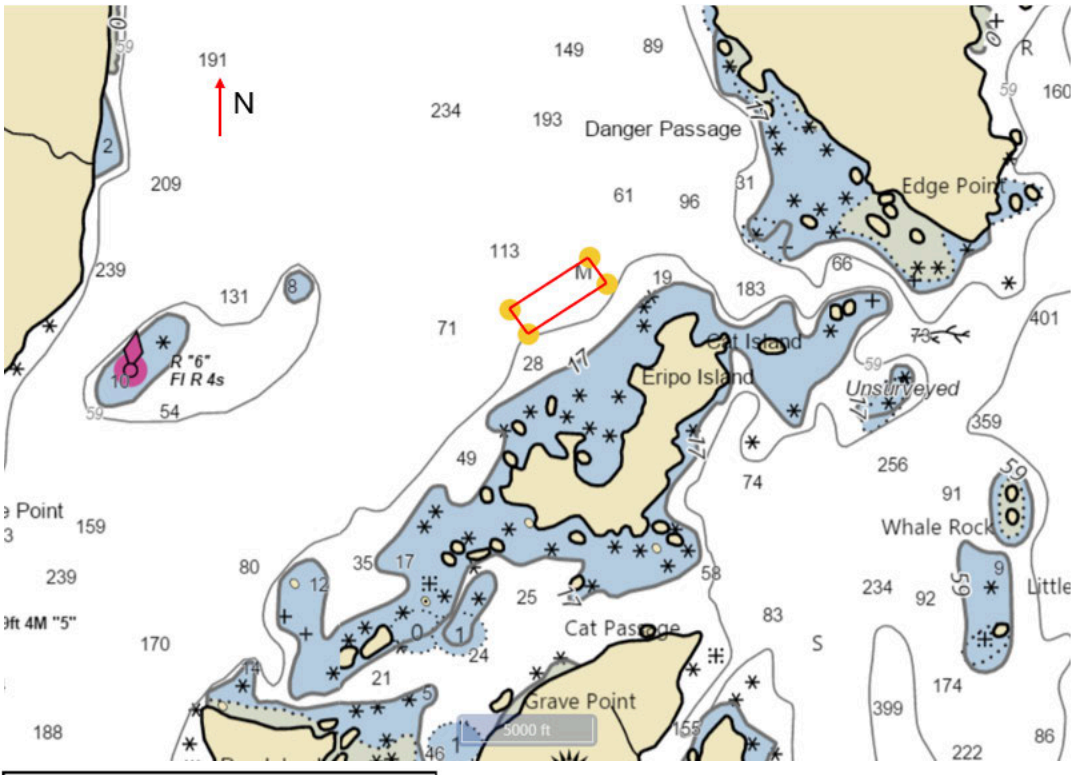




Note: All depths are distance from the surface to the bottom MLLW.
Anchor weight: Expected between 10,000 and 30,000lb (ea)
Major on bottom features in Figure 4B. Bathymetry shown in figure 4A

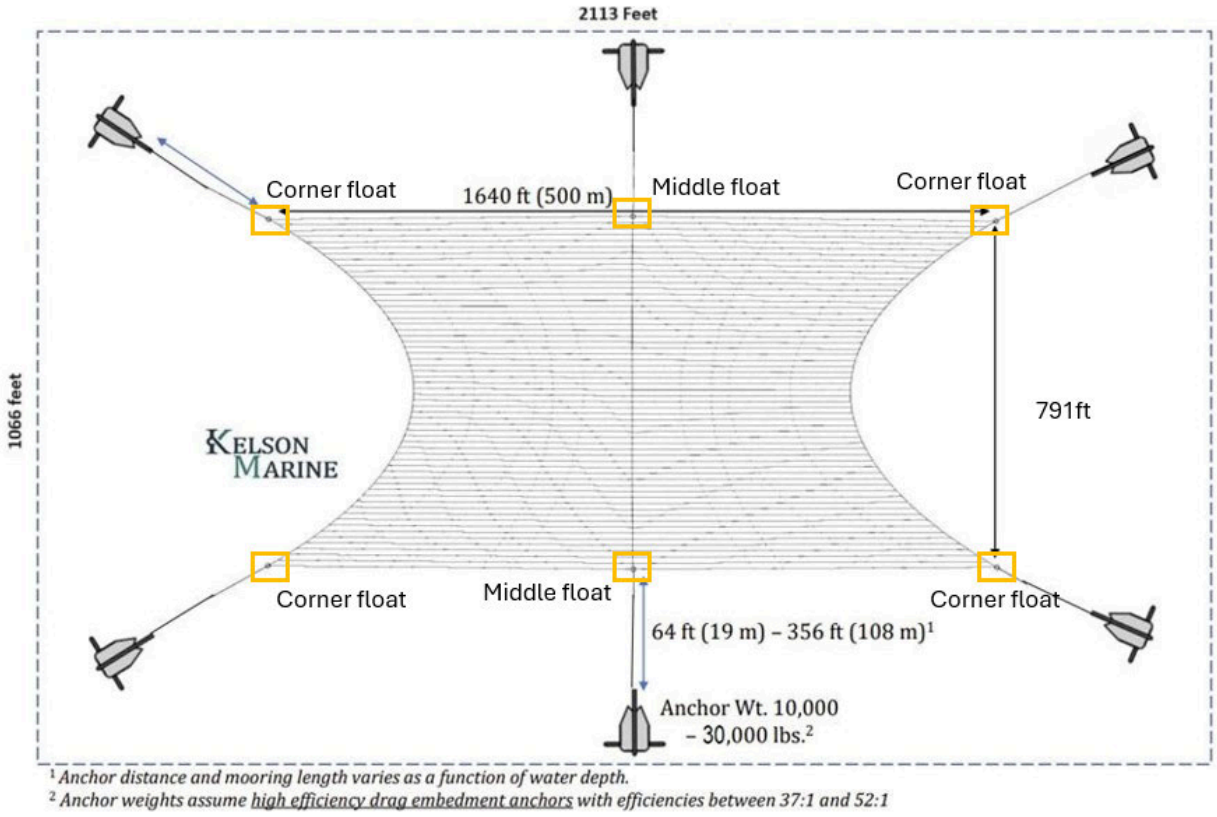
Figure 4A: Cross Sectional Diagram
Name: Pacific Kelp Company
Waterbody: Felice Strait
Region: South of Ketchikan, Southeast AK
Date: 12/2025

Figure 4B: Diagram Supporting Information for Major On-Bottom Physical Features



Legend:
= ROCK which covers & uncovers
S = Sand
Sh = Shells
= Mountain
= Rocky Ledges or Coral Reef
R = Rocky
Anadromous Stream
Approx. Parcel boundaries

Figure 5: Detailed Cross-Sectional Diagrams and Drawings
Note: Only depicts array and anchor system.



[1] *Anchor distance and mooring length varies as a function of water depth.*
[2] *Anchor weights assume high efficiency drag embedment anchors with efficiencies between 37:1 and 52:1*

Expected distance between grow lines = ~24’