For Office Use Only	ADNR File No:	2344045	DATE STAMP:	4/30/2024 10/14/2025 10/20/2025
	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

Annie Brewster
Name

Annie Brewster
Contact Name

Equinox Oyster Co.
Business Name (If Applicable)

[redacted]
Contact Phone Number

[redacted]
Mailing Address (PO Box or Street Address)

Bruce Short, Midge Short
Business Partner Name (If applicable)

[redacted] [redacted]
City State Zip

[redacted]
Business Partner Email Address (If applicable)

[redacted]
Email Address

[redacted]
Business Partner Phone (If applicable)

[redacted]
Home/Office Phone Cell Phone

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: 4/30/2024

Company Name

Equinox Oyster 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.*]

See attached answer document.

Site Dimensions, Acres for Each Parcel

See attached answer document.

Total Acres of All Parcels

1.31 acres.

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

Pacific oyster, Magallana gigas

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.*]

See attached answer document.

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 answer 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.]*

See attached answer document.

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.*]

See attached answer document.

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

N/A

–

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

See attached answer document.

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

See attached answer document.

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 15 (days/month) **Off months** 3 (days/month)

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

Both pressure washing and air drying.

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)?

See attached answer document.

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?

See attached answer document.

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

See attached answer document.

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

X

See attached answer document.

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.)

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)?

See attached answer document.

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: Working FLUPSY Parcel	NE Corner No. 1: Latitude 57° 52.2822	Longitude 152° 39.1794
	SE Corner No. 2: Latitude 57° 52.2462	Longitude 152° 39.2076
	SW Corner No. 3: Latitude 57° 52.257	Longitude 152° 39.2532
	W Corner No. 4: Latitude 57° 52.2786	Longitude 152° 39.252
	N Corner No. 5: Latitude: 57° 52.2918	Longitude: 152°39.219
Parcel 2: Winter FLUPSY Storage Parcel	NE Corner No. 1: Latitude: 57° 52.8120	Longitude: 152° 38.7900
	SE Corner No. 2: Latitude: 57° 52.7940	Longitude: 152° 38.7906
	SW Corner No. 3: Latitude: 57° 52.7946	Longitude: 152° 38.8314
	NW Corner No. 4: Latitude: 57° 52.8126	Longitude: 152° 38.8314

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: 134ft x 141ft x 236ft x 160ft x 130ft = 42,253 square feet (using Heron's formula) (÷) 43,560 = 0.97 acres

Parcel 2: 134ft x 111ft = 14,874 square feet (÷) 43,560 = 0.34 acres

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

How many total acres of state-owned tidelands are you applying for (add all parcel acres): 1.31 **(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 It is in Anton Larsen Bay which is protected.
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**: See attached answer document.
   (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**: Can still see Secchi disk at bottom at high tide (25' deep) in April
   (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** ☐ N/A
   Substrate and vegetation? _____
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): 3' Water depth at low tide (in ft): 14'
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:
    The closest eelgrass bed is 0.7 miles away due south, kelp beds are at a greater distance.
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?
    See attached answer document.

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: We have established that this proposed FLUPSY will not impede boat traffic in any way.

☐ 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. See attached answer document.

	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. See attached answer document.

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).

      _____ See attached answer document. _____

      _____

   b. The last known date of use. _____
   c. The distance from site previously used to your proposed site.

      _____

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).
      See attached answer document.

   b. The location and distance from your site.
      See attached answer document.

   c. The name of the discharger(s), if known.
      See attached answer document.

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 may 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 Annie Brewster

Signature of Applicant _____ **Date** 4/30/2024

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.

Annie Brewster

Equinox Oyster Co.

4/30/2024

Alaska Aquatic Farm Program
Joint Agency Application – Part II
Attached Answers

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. Alaska Aquatic Farm Program – Part II Page 2 of 13 Rev. 10/2021 (ADNR, ADF&G, ADEC) PROJECT DESCRIPTION DATE SUBMITTED:

Company Name: Equinox Oyster 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.]

Our site will be located in Anton Larsen Bay, which is part of the Kodiak Archipelago. Anton Larsen Bay is located at the west end of the Kodiak road system, 16.5 miles from the City of Kodiak. There is a public use dock and boat launch in Anton Larsen Bay that is 15.1 miles from the City of Kodiak, which is used by residents of Anton Larsen Island and residents of Kodiak. Our proposed site can be accessed by boat from both the public use dock and the end of the Anton Larsen road system. Our proposed FLUPSY will be anchored directly adjacent to land privately owned by two of the individuals involved in this proposed operation on Anton Larsen Island, Bruce and Midge Short. This FLUPSY will be 250' from the high tide line and 150' from the low tide line, on a point of the shoreline that is 0.16 miles from the neighboring property to the east and 0.2 miles from the neighboring property on the west. The FLUPSY will be tucked into a small inlet in a location that will not obstruct navigation of vessels or subsistence, sport, or commercial fishing. The winter FLUPSY storage location will be on the north side of Anton Larsen Island in what is locally known as Back Bay. This winter storage site is similarly a location without boat traffic and will not obstruct navigation of vessels or subsistence, sport, or commercial fishing.There are six year-round, full time residents on Anton Larsen Island in Anton Larsen Bay. Although Anton Larsen Island is populated, it it sparse, and the nearest establish communities are further away: the city of Kodiak is 16 miles away (16.5 miles by road and 0.7 miles by boat), the village of Ouzinkie is 10 miles away by boat, and the village of Port Lions is 9.2 miles away by boat.

Site Dimensions, Acres for Each Parcel

Parcel 1 total parcel size measurements are 134' x 141' x 236' x 160' x 130', which gives a total parcel area of 42,253 square feet, or 0.97 acres. The FLUPSY itself will be 25' X 35'. For the anchoring system, the scope will be 32.5' long on the offshore (East) side and 18.5' long on the nearshore (West) side, extending from each corner of the FLUPSY down to a 110lbs West Marine high-tensile steel claw anchor. There will be 4 anchors in total. With the high tide depth

at 25’ on the offshore side of the FLUPSY and 21’ on the nearshore side, the scope will be at a 50° angle to the FLUPSY, and the scope will extend 25’ from the FLUPSY itself. Thus, the full footprint of the FLUPSY plus anchoring system will be 61’ X 71’ (dimensions rounded up). Parcel 2 total parcel size measurements are 134' x 111', which give s a total parcel area of 14,874 square feet, or 0.34 acres.

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.]

Our culture method will begin by receiving oyster seed from Hawaiian Shellfish. We have calculated that our FLUPSY will have a maximum capacity of ten million oyster seed. We have achieved this figure through calculating seed per square foot of silo space from data that other FLUPSY growers have provided to us. We plan to start smaller with one million seed, but we intend to scale up as our business grows, as we iterate our methods, and as there is increasing demand as the mariculture industry in Alaska grows. From our research and from data provided to us from other FLUPSY growers we have determined that we will initially outplant a high density of seed in just a few silos at a density of about 100,000 to 200,000 seed per silo, and will disperse seed into other silos at lower densities as growth is occurring. We intend to outplant seed into the FLUPSY at the end of April or beginning of May. Once per month for a period of approximately five months, the seed will be sorted based on size using mesh trays of different sizes, and like sizes will be placed back into the FLUPSY baskets, but we are prepared to iterate this itinerary and adjust our sorting schedule based on our observations. Growth rates and density will be optimized with the FLUPSY design, as the upwelling action created by the pump will increase phytoplankton availability. We will be optimizing uniformity in size every time we sort sizes and clean biofouling, by shifting the seed to different silos in the FLUPSY, which will ensure that if a certain silo/silos have higher nutrient flow, that many seed will rotate through that position. We plan to manage biofouling on a biweekly schedule, but we are also prepared to adapt this schedule in accordance with the conditions, as we may need to manage biofouling more or less frequently. Two of the individuals involved in this proposition, Midge and Bruce, have experience with raising oysters as part of a feasibility study in this exact location before, and thus they have experience and data on the specific nature of biofouling for this site. We furthermore plan on collecting quantitative data of temperature, current, salinity, phytoplankton density, and dissolved oxygen, and qualitative data on biofouling, in order to evaluate fouling trends and better tailor our fouling management for the future. For this biweekly biofouling management schedule, we intend to remove baskets and silos from the FLUPSY, temporarily transfer the oyster seed to a holding tank (5 gallon bucket with sea water), and pressure wash the silos and baskets to remove fouling. We have electricity on site, so a pressure washer can be plugged in on shore adjacent to the FLUPSY. All of the electricity on site is solar power and 100% renewable.

For predator mitigation, in addition to using stainless steel mesh screens on the bottoms of the baskets, we plan to put stainless steel mesh screens on the outflow of each silo in the FLUPSY to ensure that predators (i.e. starfish, chitons, etc.) can’t enter silos from this direction. From our research, the FLUPSY appears to be fairly predator resistant as the silos are fully contained and there will be covers on top of the silos. We will be optimizing survival by

protecting the seed from predators with these described methods. If there are any incidental species that make their way into the FLUPSY through the stainless steel mesh screens in the larval stage and grow in size within the baskets, such as barnacles or mussels, they will be found and rogued out during each biofouling check. As this site will be right next to Bruce and Midge's property, daily monitoring and observation will be easy. Bruce and Midge will be able to observe the FLUPSY every day as it is just off the beach from their homestead, right next to their running lines, and in full view from the cabin windows. This observation will be helpful for making sure the anchors and lines are in place, silo covers are on, no predators are getting into the silos, etc. The site for the FLUPSY is in such a location that the tidal current can maximize the Venturi effect of the water moving through the site, thus further increasing phytoplankton availability in an efficient manner.

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.]

We will build a FLUPSY ourselves, utilizing as many local materials and as much local labor as we can. The FLUPSY will be constructed from untreated local Sitka spruce milled by the Island Lake Sawmill in the City of Kodiak and will be constructed in town using local labor. We will use 40" long, 18" diameter polymer polyethylene fender buoys, four West Marine high-tensile steel claw 110lb anchors, line, and miscellaneous hardware that we already own. We are hoping to collaborate with the Ocean Plastics Recovery Project, who plan to have their Kodiak facility ready and operational by 2025, around the time we get permitted and are able to begin building the FLUPSY. The Ocean Plastics Recovery Project has injection molding and extruding equipment, and we will ideally be able to commission OPRP to mold our silos and baskets out of plastics that have been recovered from waters and beaches around the Kodiak Archipelago. Our FLUPSY will be 25' x 35' and will have an array of 126 silos that are 2' x 2'. There will be a boardwalk 3.5' wide around the entire perimeter of the FLUPSY. We will build a sliding boardwalk spanning the width (shorter distance) of the FLUPSY silos. This boardwalk will be 4' wide and 19' long and will have stainless steel v-groove wheels that will be set on the stainless steel v-groove tracks that run along the inside of the boardwalk along the length (longer distance) of the FLUPSY so that the boardwalk can be slid from one end to the other in order to access all of the silos. There will be chocking mechanisms on the boardwalk that can easily be locked into place, allowing us to safely access the silos in the middle of the array. This design will maximize space on the FLUPSY, unlike traditional FLUPSY designs that have a central boardwalk. Although the FLUPSY will be close to the beach, we plan to access it for work purposes using a skiff.. Sorting and sizing will take place in the skiff. For biofouling management, we plan to transfer the seed into holding tanks in the skiff, collect the silos and baskets in the skiff, and transport them to shore for pressure washing, then return them and the seed to the FLUPSY with the use of the skiff. We intend to keep the gear in the water year-round. At the onset of building sea ice that occasionally forms in the winter, the FLUPSY will be towed to Back Bay on Anton Larsen Isalnd which has protected ice-free water on the north side of Anton Larsen Island, and will be towed back to our site in the spring. The winter FLUPSY storage parcel is a 2.3 mile drive by skiff from the working FLUPSY parcel.

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 will be obtaining seed from Hawaiian Shellfish LLC, a hatchery owned by Nisbet Oyster Co. We are acquainted with Dave Nisbet, owner of Nisbet Oyster Co. and Hawaiian Shellfish LLC, as well as Brian Koval, the Hawaiian Shellfish LLC hatchery manager. We have spoken at length with both Dave and Brian; they are expecting to do business with us and Brian will make sure to produce enough stock to accommodate our orders. Our FLUPSY will have a maximum capacity of ten million seed, but we aim to start with one million seed our first growing season.

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.]

We have a 25' aluminum work skiff with a davit, and we intend to use the davit to lift the baskets out of the silos in the FLUPSY and bring them into the skiff for ergonomical purposes. This methodology will be used for biofouling management, sorting, and harvest.

Support Facilities (Type, Size, Number, Configuration, Material, and Anchoring) [Support facilities include caretaker facility, storage rafts, work rafts, processing rafts, etc.]
Because the FLUPSY site will be located mere fathoms from property owned by Bruce and Midge, the existing structures on this privately owned property will be used, and there will be no support facilities within the parcel itself.

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

Although Ouzinkie and Port Lions are nearby villages, all travel will be to and from the City of Kodiak. Our site will be located in Anton Larsen Bay, which is located at the west end of the Kodiak road system. The road from Kodiak to Anton Larsen Bay is both paved and dirt, and the dirt road is well graded. The end of the road is 16.5 miles from the City of Kodiak, and some residents of Anton Larsen Island have their running lines for their skiffs in this location as this is quicker access to the island, as well as quicker access to our proposed site. There is a public use dock and boat launch in Anton Larsen Bay that is 15.1 miles from the City of Kodiak, from which it is still very easy to access the island and our proposed site. Our proposed site can be accessed by boat from both the public use dock and the end of the road; it is about 0.7 miles and about 7 minutes from the end of the road to our proposed site, and about 1.5 miles and about 15 minutes from the Anton Larsen Bay public use dock to our proposed site. In total, travel time from Kodiak to the site is about 37-45 minutes. Bruce and Midge are year-round residents at their homestead on Anton Larsen Island, so access will be very easy. Annie will be commuting from Kodiak at least every other week for our proposed biofouling management and sorting plans, but is prepared to travel to the FLUPSY site with higher frequency if biofouling management, sorting, gear maintenance, or other unforeseen snafus arise or other work needs to be accomplished. Furthermore, Annie

typically spends many weekends out at the homestead anyhow, so her travel to and from the FLUPSY will not be anything but typical.

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

We intend to keep the gear in the water year-round. In the event of ice formation, we will tow the FLUPSY to the opposite side of Anton Larsen Island to to Back Bay where Parcel 2 is located to protected ice-free water. We will store mesh trays for sorting, power washer, etc. in the aforementioned gear shed on privately owned property.

C. PROJECT OPERATION PLAN

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

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 plan to put stainless steel mesh screens on the intake and outflow of each silo in the FLUPSY to ensure that predators such as starfish can't enter silos from either direction. From our research, the FLUPSY appears to be fairly predator resistant as the silos are fully contained and there will be covers on top of the silos. For this reason, we do not expect to have problems with predators or competing species. I have spoken with Eric Wyatt from Blue Starr Oyster Co about competing species making it into the silos in the larval stage and growing within the silos amongst the oysters. It was Eric who suggested using stainless steel mesh screen for intake and outflow for this reason. If any competing species larvae do get into a silo and begin growing, they will be found and sorted out during each biofouling check and sorting. There is a chance of mussel and barnacle growth on the outside of the FLUPSY, which we plan to scrape off of the FLUPSY if these animals are in a position to interfere with phytoplankton flow to the oysters.

2. Projected Harvest Rotation Consistent with Life History

a. How often do you intend to harvest your product by species?
The typical oyster seed rotation through a nursery system that is consistent with oyster life history is focused on approximately five months during the summer when water temperatures are warmest and phytoplankton is most abundant, two key factors in fitness and growth of oysters. Seed from the hatchery will be outplanted into the FLUPSY in late April or early May and will be harvested the next year just before shipping to buyers, as other growers will most likely be outplanting in spring and summer in order to maximize phytoplankton availability, at which point they will be sold to growers. We plan to scale up our operation later on in introducing staggered cohorts rotating through the FLUPSY with different outplanting dates and harvesting dates, which will further increase our capacity and will allow buyers more flexibility. We intend to harvest initially just a few times per year in the spring, because of the reasoning provided in the above answer.

b. Do you plan on utilizing density manipulation by culling or redistribution?
c. What techniques will be used to optimize growth or condition of product?

We plan on utilizing density manipulation not by culling but by thinning density as the oysters increase in size. As the oyster seed grow, we will redistribute some seed into empty baskets in the FLUPSY to optimize surface area to nutrient flow. We also understand that dead loss will factor into this redistribution.

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)?
Above we have covered some predator exclusion, reduction of competing species, density manipulation, importing hatchery seed, and program harvest. One more thing to add in the scope of predator exclusion is to discuss sea otters. Anton Larsen Bay has a significant sea otter population that has been growing over the last 40 years. We intend for the FLUPSY to be otter-proof. The stainless steel mesh screens, sturdy silos, and silo hatch covers will prevent otters from accessing the oysters. In terms of habitat improvement, we expect the oyster seed to contribute a small degree of ecosystem service in terms of filtering the water.

E. SITE SUITABILITY – PHYSICAL AND BIOLOGICAL CHARACTERISTICS

6. Have you monitored the phytoplankton (microalgae) abundance and types during the main grow-out season?
Yes x No ☐ If yes, findings: We have not specifically monitored phytoplankton abundance using phytoplankton tows but this site has previously been part of an oyster feasibility study in which the culture of oysters was extremely successful, which extrapolates out to there being abundance of phytoplankton in the water. Bruce and Midge have years of logs denoting the timing of phytoplankton every spring. (Note: shellfish depend on phytoplankton for food, but harmful phytoplankton can prevent harvest/sales.)

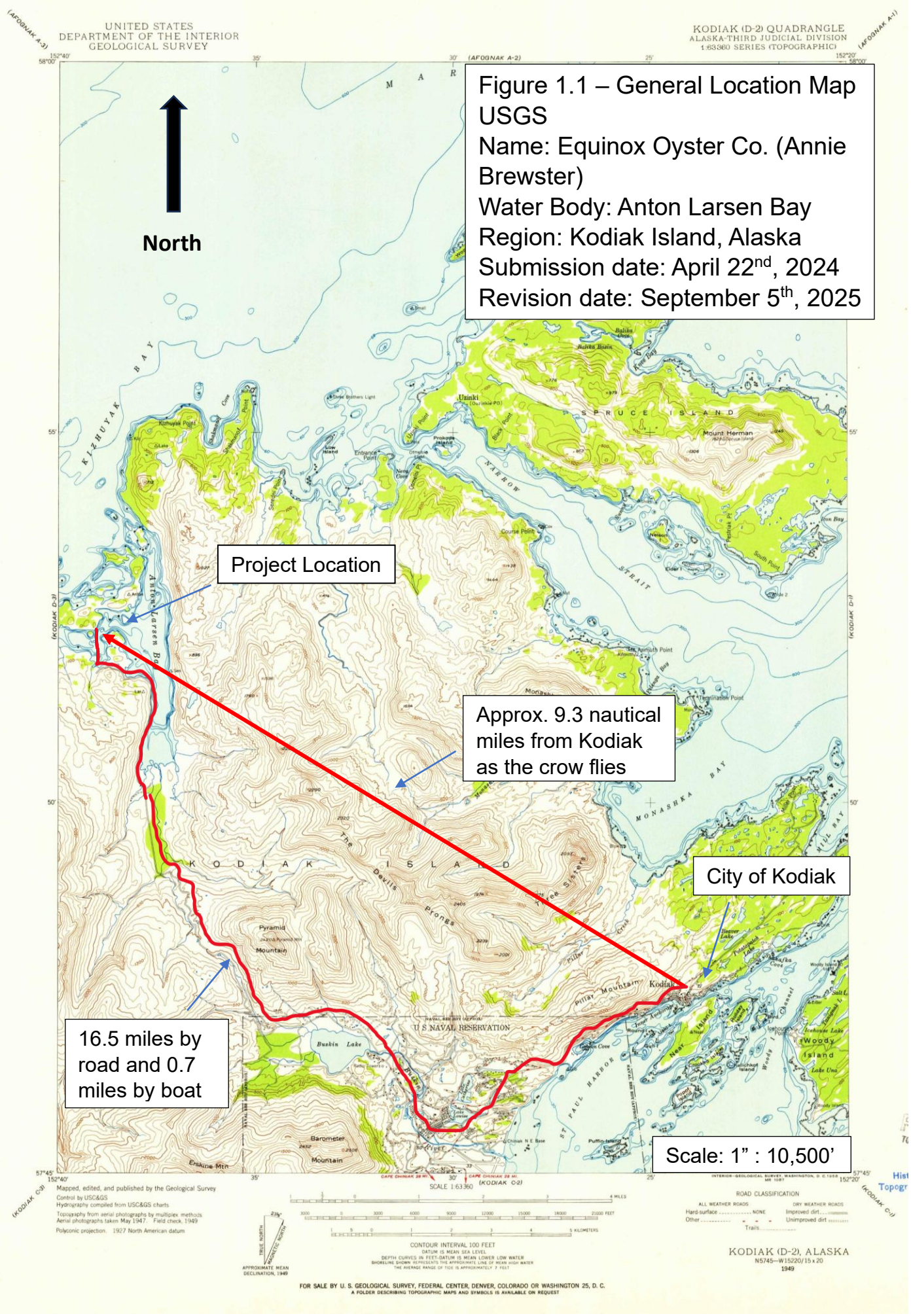
14. Are there existing uses near your proposed farm site such as boat traffic, existing fisheries or a sensitive area as listed in section C of Part 1, etc. that may be impacted by the farm operation?
If yes, describe how your farm can be sited to mitigate conflicting uses?
There are existing uses near our proposed site but none of which will conflict with our proposed operation. Due to the small footprint of our proposed FLUPSY, the fact that it will be relatively “tucked up” close to property that Bruce and Midge own, we are not concerned about conflicting uses and see no reason to try to mitigate. All of the neighboring residents on Anton Larsen Island have been contacted and all are in support of this project. Most of the boat traffic in Anton Larsen Bay is from residents of Anton Larsen Island, some is from sport fishermen, residents of Port Lions and Ouzinke villages, etc. Our proposed site is in no way impeding a navigation channel, existing fisheries (commercial, subsistence, or sport), cultural areas, or sensitive areas.

I. WATER QUALITY INFORMATION – Department of Environmental Conservation

1. Do you plan to use a boat on your farm site?
We do not need a MSD (marine sanitation device) as our boat is an open aluminum skiff. There are no restroom facilities on board because of this, and there won’t be any future need of restroom facilities on board due to the proximity of established facilities on shore.

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.)

a. The type of discharge(s). There is a very minimal amount of gray water discharge by the residents of Anton Larsen Island since there are only four primary residential properties on the island, and each uses either a plumbed bathroom with a septic tank or an outhouse. Besides this, the water is very pristine in Anton Larsen Bay, and is far away from industrial facilities, sewage outfalls, harbors, or other sources of contamination.
b. The location and distance from your site. There are no nearby sources of pollution.
c. The name of the discharger(s), if known. N/A


UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
KODIAK (D-2) QUADRANGLE
ALASKA-THIRD JUDICIAL DIVISION
1:63360 SERIES (TOPOGRAPHIC)
North
Figure 1.1 – General Location Map
USGS
Name: Equinox Oyster Co. (Annie Brewster)
Water Body: Anton Larsen Bay
Region: Kodiak Island, Alaska
Submission date: April 22nd, 2024
Revision date: September 5th, 2025
Project Location
Approx. 9.3 nautical miles from Kodiak as the crow flies
City of Kodiak
16.5 miles by road and 0.7 miles by boat
Scale: 1" : 10,500'
KIZHUYAK BAY
SPRUCE ISLAND
Mount Herman
NARROW STRAIT
ANTON LARSEN BAY
MONASHKA BAY
KODIAK ISLAND
Pyramid Mountain
Pillar Mountain
Kodiak
U S NAVAL RESERVATION
Buskin Lake
Woody Island
ST PAUL HARBOR
Barometer Mountain
Erskine Mtn
Puffin Island
SCALE 1:63360
CONTOUR INTERVAL 100 FEET
KODIAK (D-2), ALASKA
1949
FOR SALE BY U. S. GEOLOGICAL SURVEY, FEDERAL CENTER, DENVER, COLORADO OR WASHINGTON 25, D. C.

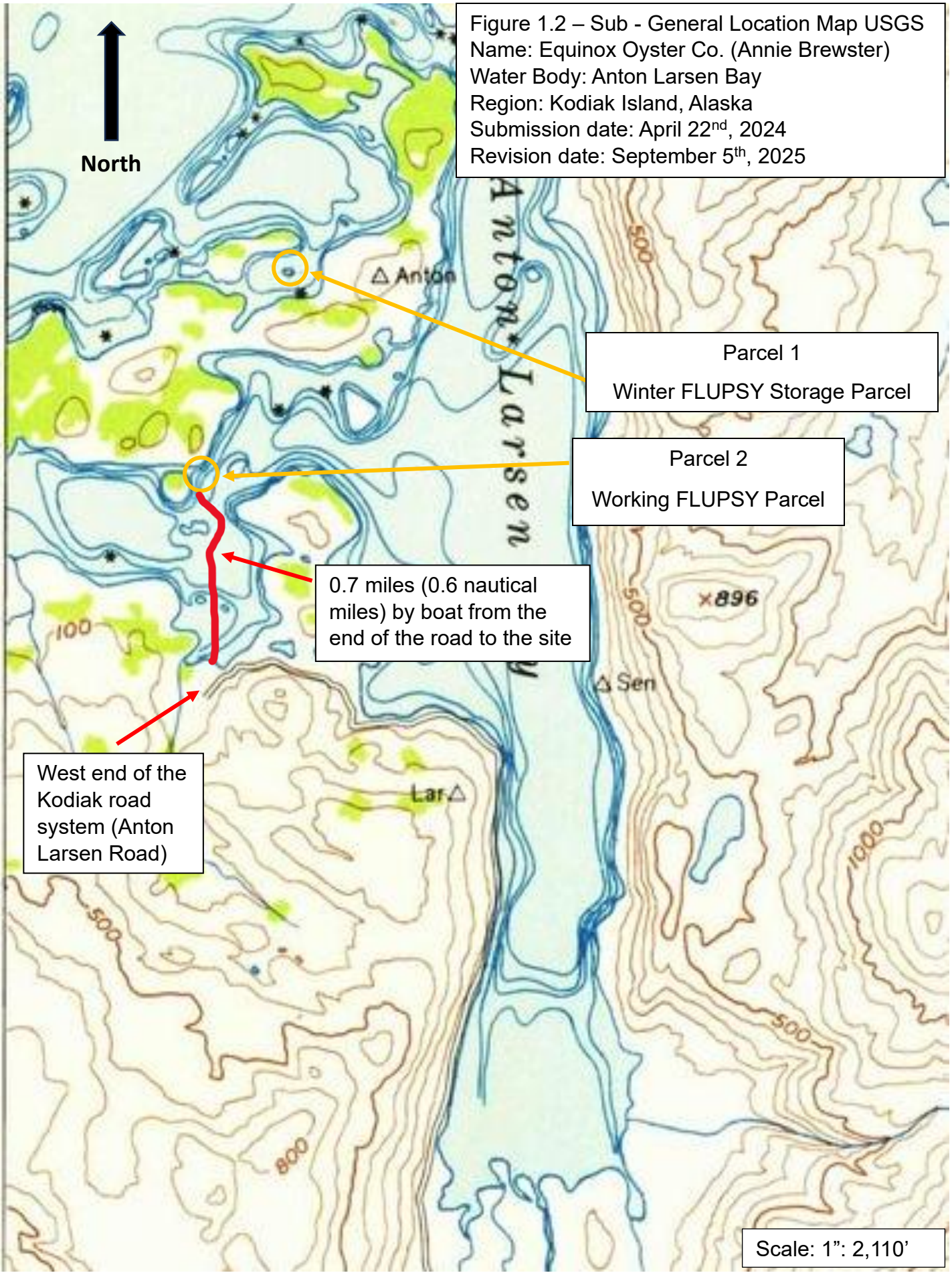


Figure 1.2 – Sub - General Location Map USGS
Name: Equinox Oyster Co. (Annie Brewster)
Water Body: Anton Larsen Bay
Region: Kodiak Island, Alaska
Submission date: April 22nd, 2024
Revision date: September 5th, 2025
North
Parcel 1
Winter FLUPSY Storage Parcel
Parcel 2
Working FLUPSY Parcel
0.7 miles (0.6 nautical miles) by boat from the end of the road to the site
West end of the Kodiak road system (Anton Larsen Road)
Anton Larsen
Anton
Sen
Lar
×896
500
100
1000
800
Scale: 1": 2,110'

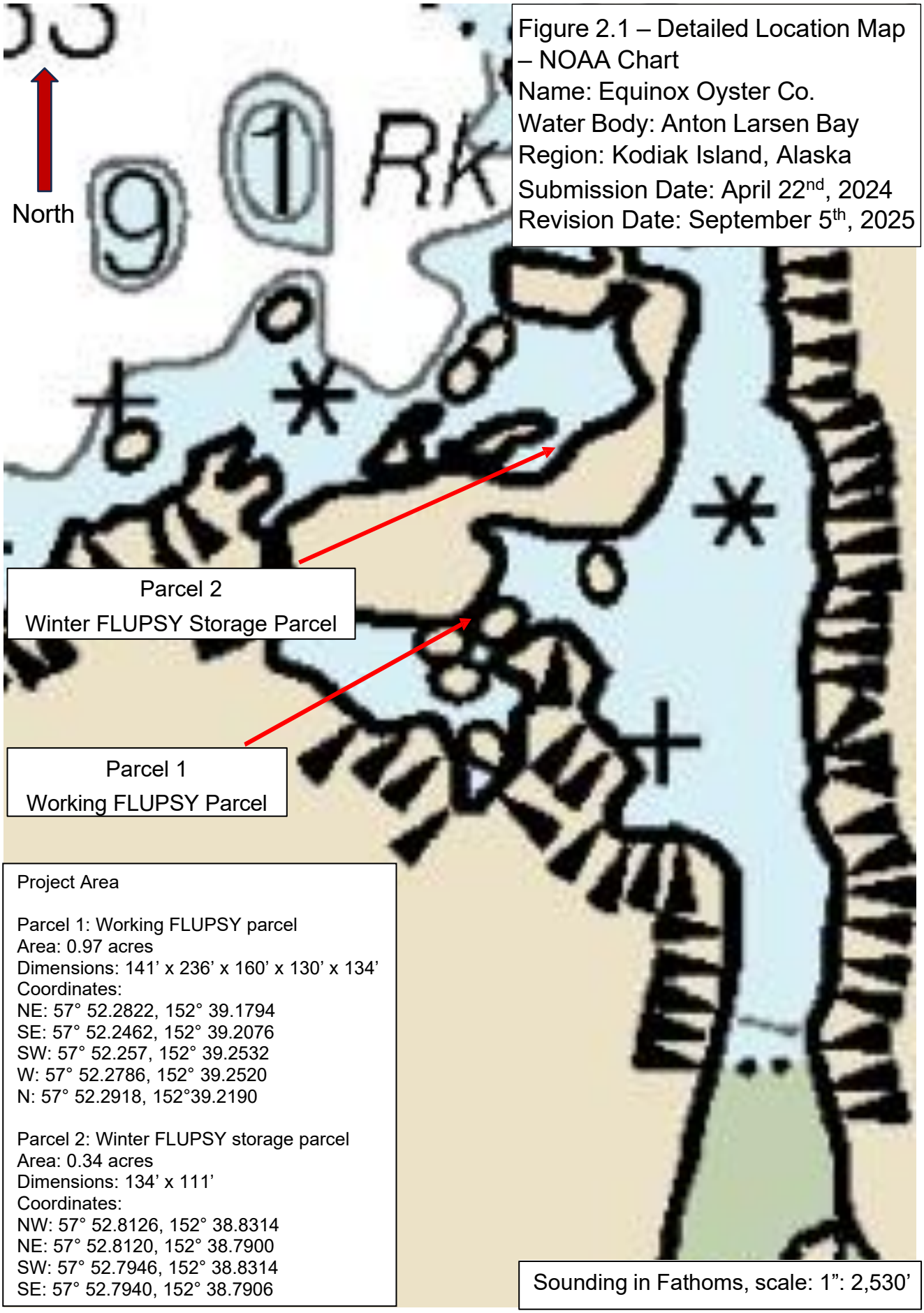


Figure 2.1 – Detailed Location Map – NOAA Chart
Name: Equinox Oyster Co.
Water Body: Anton Larsen Bay
Region: Kodiak Island, Alaska
Submission Date: April 22nd, 2024
Revision Date: September 5th, 2025

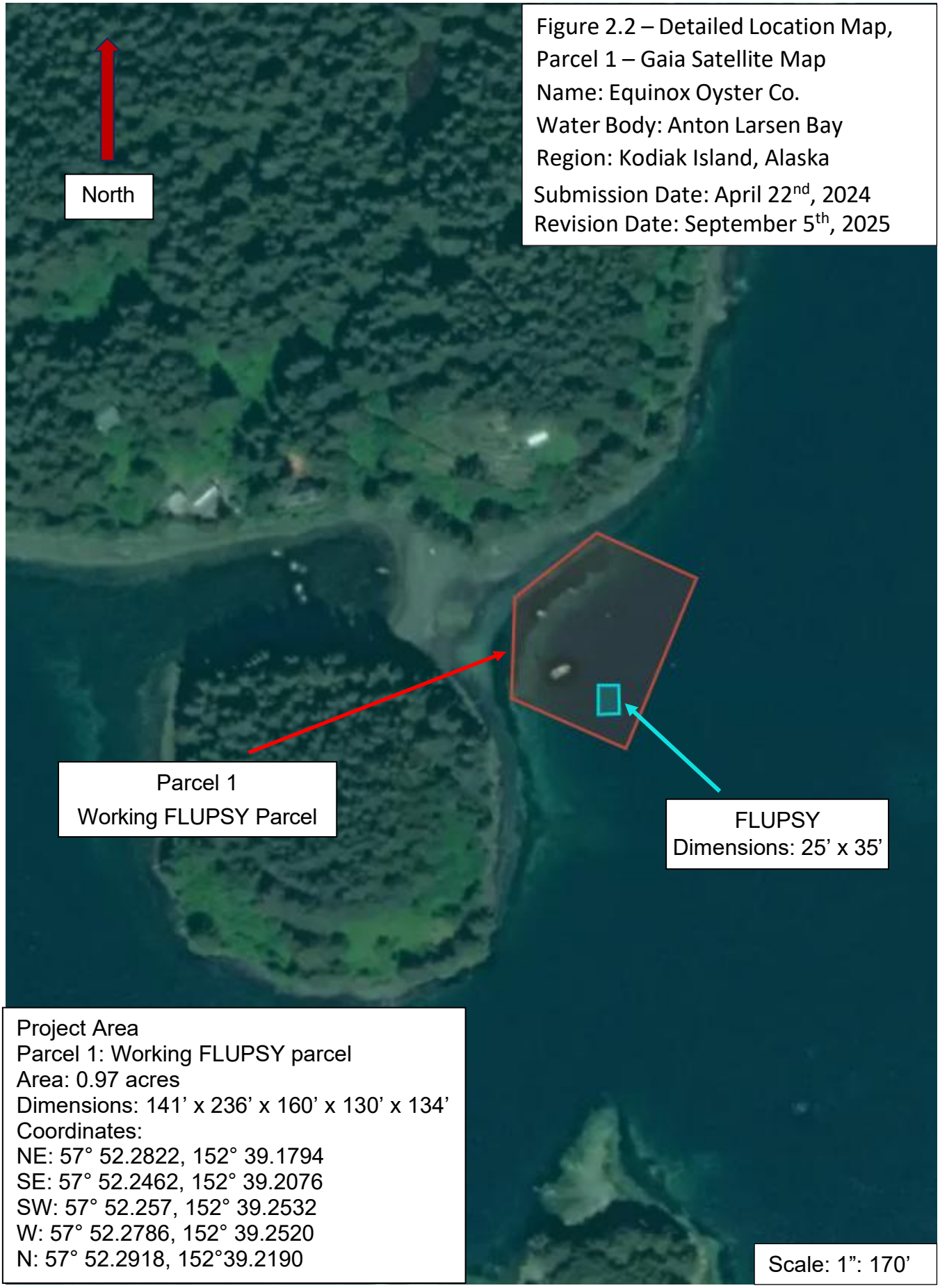


Figure 2.2 – Detailed Location Map,
Parcel 1 – Gaia Satellite Map
Name: Equinox Oyster Co.
Water Body: Anton Larsen Bay
Region: Kodiak Island, Alaska
Submission Date: April 22nd, 2024
Revision Date: September 5th, 2025

Figure 2.3 – Detailed Location Map,
Parcel 2 – Gaia Satellite Map
Name: Equinox Oyster Co.
Water Body: Anton Larsen Bay
Region: Kodiak Island, Alaska
Submission Date: April 22nd, 2024
Revision Date: September 5th, 2025

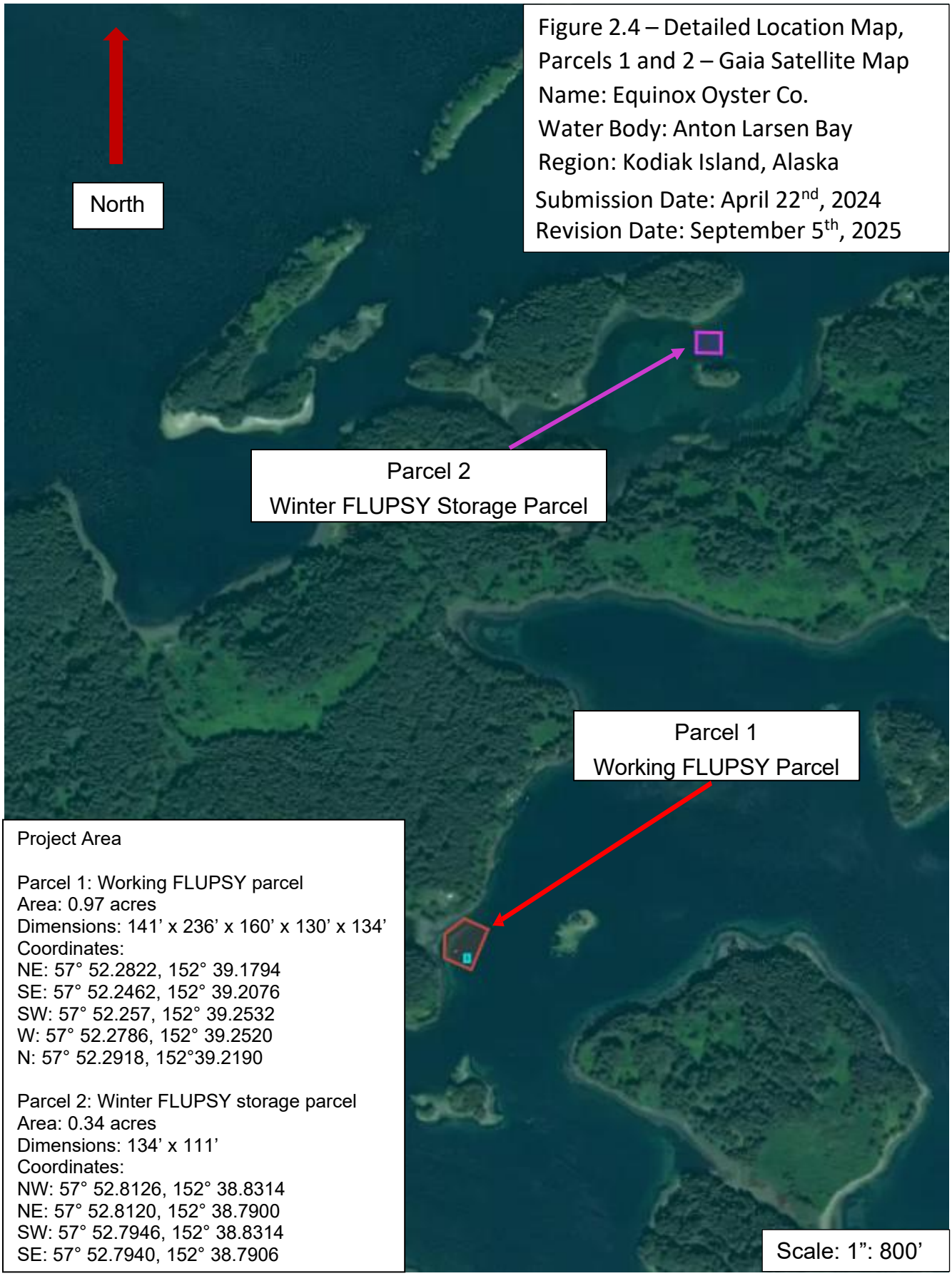
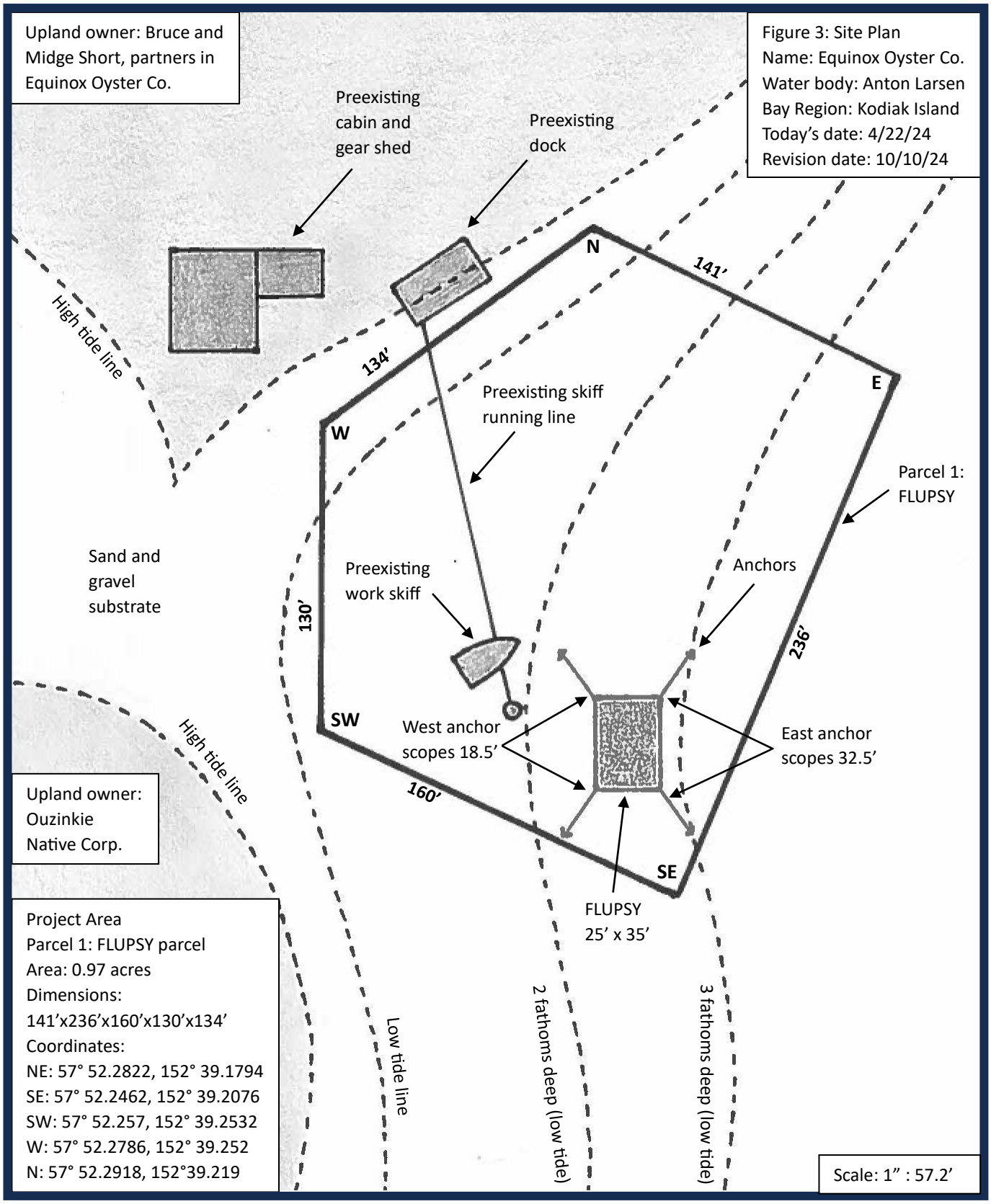


Figure 2.4 – Detailed Location Map, Parcels 1 and 2 – Gaia Satellite Map
Name: Equinox Oyster Co.
Water Body: Anton Larsen Bay
Region: Kodiak Island, Alaska
Submission Date: April 22nd, 2024
Revision Date: September 5th, 2025

FLUPSY Site Plan



FLUPSY Cross-Sectional Diagram

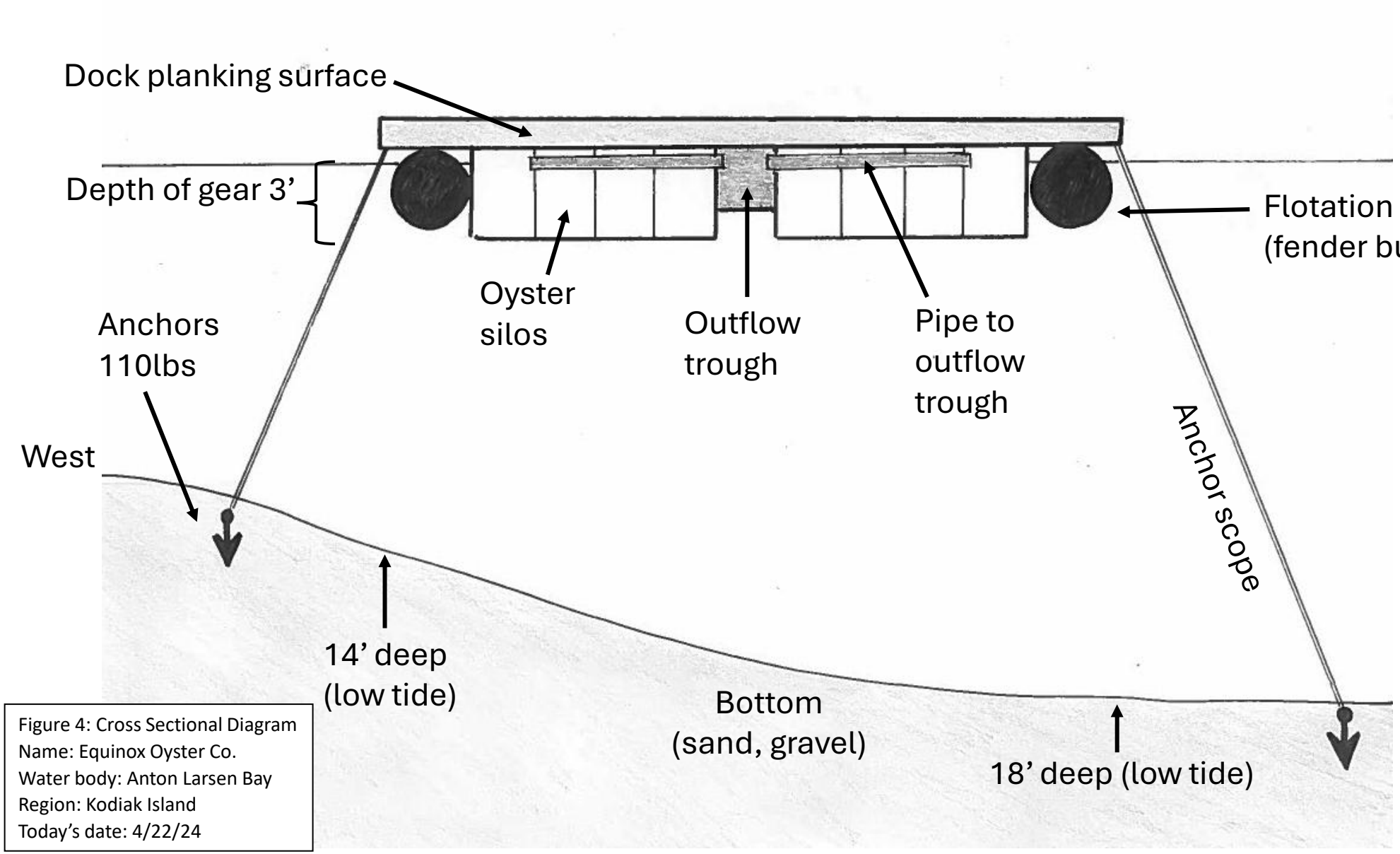


Figure 4: Cross Sectional Diagram
Name: Equinox Oyster Co.
Water body: Anton Larsen Bay
Region: Kodiak Island
Today’s date: 4/22/24

FLUPSY Plan

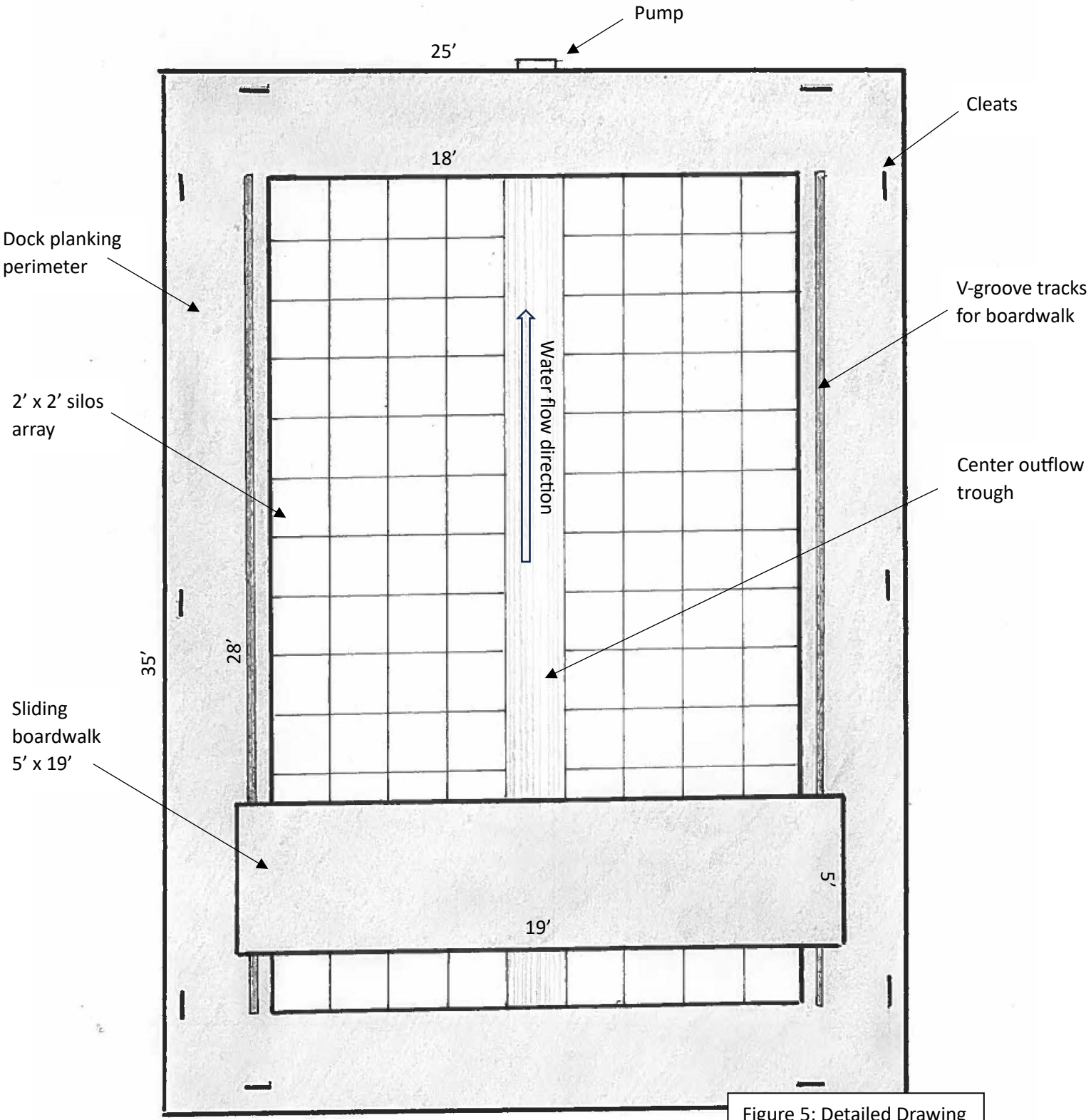
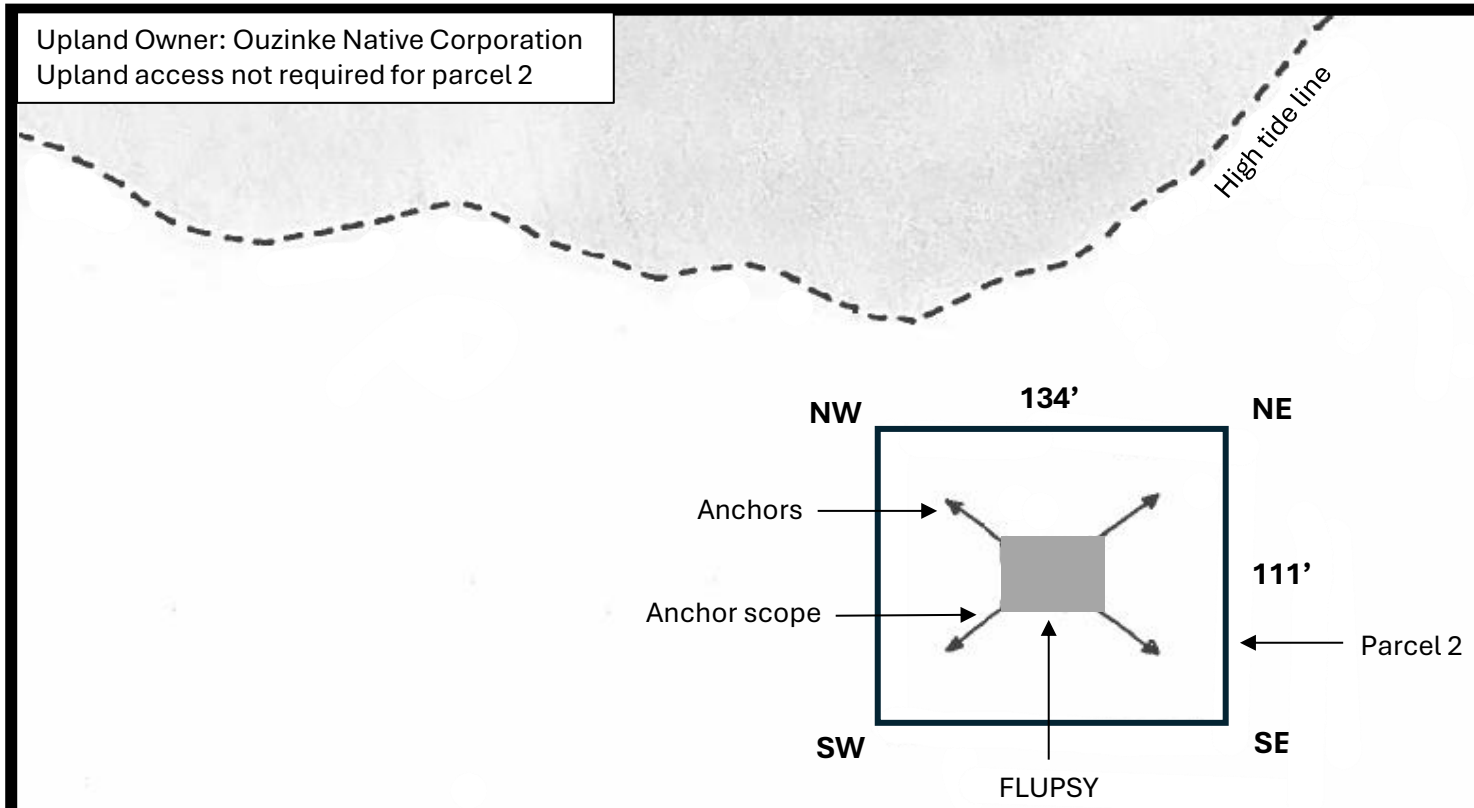


Figure 5: Detailed Drawing
Name: Equinox Oyster Co.
Water body: Anton Larsen Bay Region: Kodiak Island
Today’s date: 4/22/24

Upland Owner: Ouzinke Native Corporation
Upland access not required for parcel 2

Figure 6: Parcel 2 Site Plan
Name: Equinox Oyster Co.
Water body: Anton Larsen Bay
Region: Kodiak Island
Today's date: 10/20/25



Parcel 2 Site Plan: Winter FLUPSY storage

Project Area
Parcel 2: Winter FLUPSY Storage
Area: 0.34 acres
Dimensions: 111' x 134'
Coordinates:
NW: 57° 52.8126, 152° 38.8314
NE: 57° 52.8120, 152° 38.7900
SW: 57° 52.7946, 152° 38.7906
SE: 57° 52.7940, 152° 38.7906

Scale: 1" : 75'

Parcel 2 FLUPSY Cross-Sectional Diagram

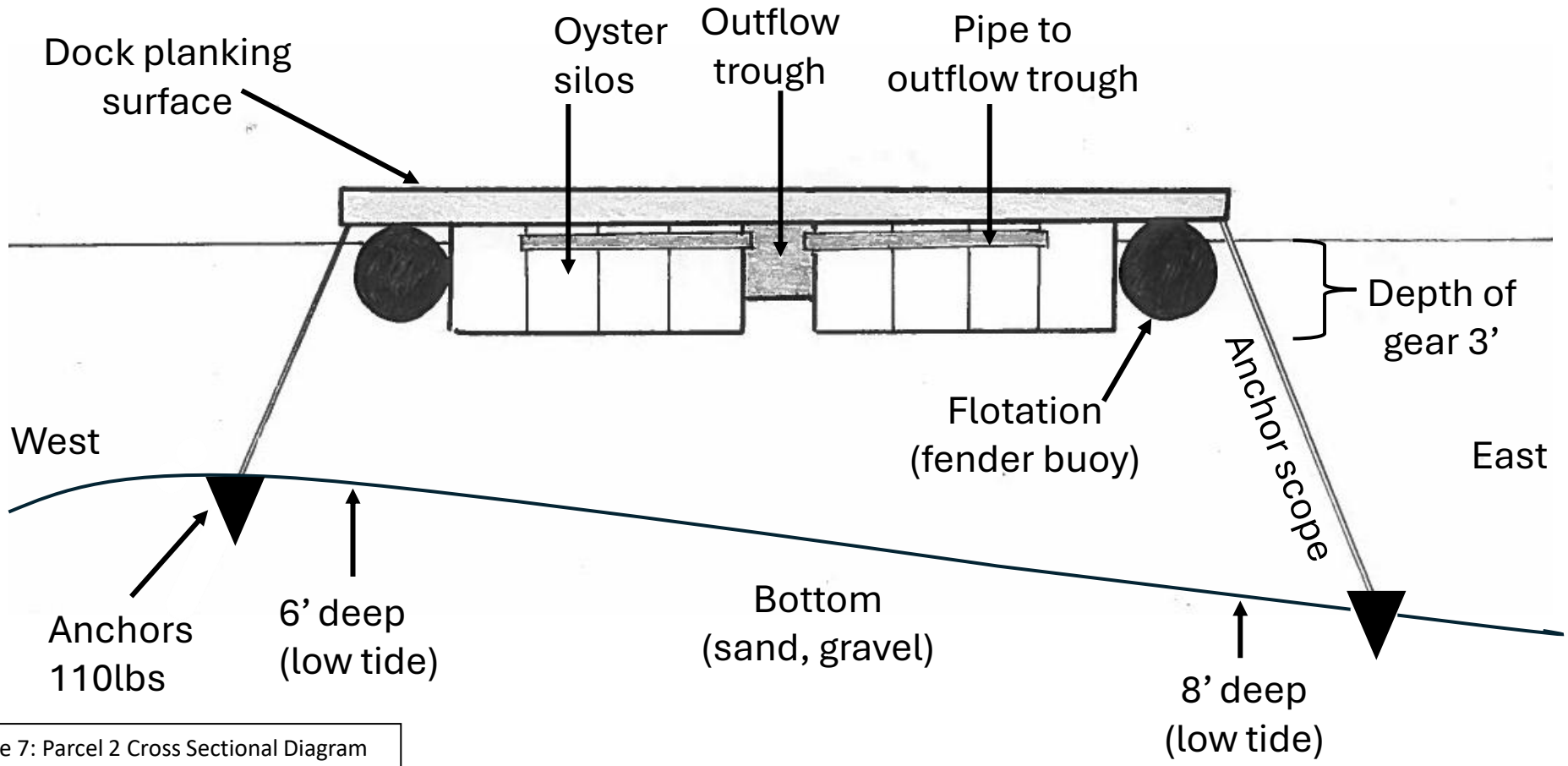


Figure 7: Parcel 2 Cross Sectional Diagram
Name: Equinox Oyster Co.
Water body: Anton Larsen Bay
Region: Kodiak Island
Today’s date: 10/20/25