

STATE OF ALASKA DEPARTMENT OF NATURAL RESOURCES
DIVISION OF MINING, LAND AND WATER

PRELIMINARY DECISION

ADL 232900

Garry White

dba Coastal Alaska Seafoods, LLC

Application for Lease

AS 38.05.083

This Preliminary Decision (PD) is the initial determination on a proposed disposal of interest in state land and is subject to comments received during the Public Notice period. The public is invited to comment on this PD. The deadline for commenting is **5:00 PM on March 13, 2019**. Please see the Comments Section of this decision for details on how and where to send comments for consideration. Only the applicant and those who comment have the right to appeal the Final Finding and Decision (FFD).

Proposed Action:

The Department of Natural Resources (DNR), Division of Mining, Land, & Water (DMLW), Southcentral Regional Land Office (SCRO) has received a request from Garry White dba Coastal Alaska Seafoods, LLC (CAS), to lease 4.13 acres, more or less, of state-owned tide and submerged lands located within Sitka Sound near the Siginaka Islands, approximately three nautical miles northwest of the furthest northern road system of Sitka, Alaska, for 10 years for the purpose of culturing Pacific oysters (*Magallana gigas*). The location of the project area is further described as being within the NW1/4 of Section 29 and the NE1/4 of Section 30, Township 54 South, Range 63 East, Copper River Meridian.

SCRO is considering the issuance of a 10-year aquatic farmsite lease to CAS, serialized as ADL 232900, for the purpose of an aquatic farm consisting of one parcel to be used for the installation of 20 grow-out rafts. Each grow-out raft will have 80 openings to suspend stacks of 10 trays for 800 trays per raft for growing Pacific oysters.

Scope of Review:

The scope of this decision is to determine if it is the State's best interest to issue this aquatic farm lease.

Authority:

This lease application is being adjudicated pursuant to AS 38.05.035(b)(1) Delegation of the Powers and Duties of the Director; AS 38.05.070(b) Generally; AS 38.05.083 Aquatic Farming and Hatchery Site Leases; and AS 38.05.945 Notice. The authority to execute the PD, FFD, and the lease, has been delegated to the Regional Manager of SCRO.

Administrative Record:

Case file ADL 232900 constitutes the administrative record for the CAS lease application.

Legal Description, Location, and Geographical Features:

The state land where this proposed lease site is located is described as follows:

- **Site reference name:** Siginaka Islands
- **Legal description:** NW1/4 of Section 29, NE1/4 of Section 30, Township 54 South, Range 63 East, Copper River Meridian
- **Geographical locations:** Sitka Sound near the Siginaka Islands, approximately three nautical miles northwest of the furthest northern road system of Sitka, Alaska.
- **Approximate Lat/Longs:**

Grow-out area for Pacific oyster: 300-feet by 600-feet = 4.13 acres

NE Corner Latitude: 57°9.666'N	Longitude: 135°26.652'W
SE Corner Latitude: 57°9.600'N	Longitude: 135°26.514'W
SW Corner Latitude: 57°9.576'N	Longitude: 135°26.604'W
NW Corner Latitude: 57°9.642'N	Longitude: 135°26.742'W

- **Existing surveys:** None
- **Municipality/Borough:** City and Borough of Sitka
- **Native Corporations/Federally Recognized Tribes:** Sealaska Corporation, Sitka Tribe of Alaska, Shee Atiká, Inc

Title:

The DNR Title Report (RPT-10539) issued on March 14, 2018, from DMLW's Realty Services Section states that the State of Alaska holds title to the subject tide and submerged lands under the Equal Footing Doctrine and the Submerged Lands Act of 1953.

Third Party Interests:

No third-party interests are known at this time.

Classification and Planning:

The project area is subject to DNR's Northern Southeast Area Plan (Area Plan), the Baranof Island Area, and within the Sitka Sound Tidelands Resource Management Zones, Map 2-1. The tideland designation for the site is Resource Management-High Value (Habitat and Public Recreation). This designation converts to the tideland classification of Resource Management Land. The closest uplands to the proposed leasehold are Tongass National Forest land.

In Chapter 2 of the Area Plan, Areawide Land Management Policies, the goal for Aquatic Farming is to "provide opportunities to increase income and diversify the state's economy through the use of state tidelands and submerged lands for aquatic farming." As specified in the Area Plan in Chapter 3 under Management Summary for Special Management Zones, the management intent for the Sitka Sound Tidelands Resource Management Zone (SSTRMZ) for Marine Waters and Tidelands is two-fold:

- "To protect the sensitive fisheries, marine mammal concentration areas, shorebird and waterfowl concentration areas, anadromous streams and areas of estuarine wetlands, as well as brown bear and deer winter concentration within intertidal areas.

- To preserve and protect the customary, traditional, recreational and personal use resources and public access to these resources.”

The Management Summary further explains, “The marine and intertidal waters of this Tidelands Resource Management Zone support a myriad of activities. Pacific herring utilize the shoreline for spawning and the marine waters for overwintering. Waterfowl and shorebirds are found to concentrate throughout this area in the spring and fall. Chinook, coho, pink, chum, and sockeye salmon along with anadromous steelhead use these areas for rearing, schooling, spawning, and migration. Brown bears concentrate along the shoreline/upper intertidal area throughout this tidelands management area. The area of the SSTRMZ is also used for a wide variety of traditional, recreational, and personal use activities, primarily by the residents of the community of Sitka. Departmental authorizations...shall follow the standards and procedures for authorizations described under 'Management Guidelines: Habitat Areas' in Chapter 2 of the Area Plan, under the section, 'Fish and Wildlife Habitat and Harvest Areas.’ The guidelines include that “all land use activities will be conducted with appropriate planning and implementation to avoid or minimize adverse effects on fish, wildlife, or their habitats.” The aquatic farmsite as proposed is consistent with the Area Plan.

Traditional Use Findings:

Traditional use findings will not be discussed in this PD because the proposed leasehold is located within the City and Borough of Sitka, an organized borough. Pursuant to AS 38.05.830, a traditional use finding is not required.

Access:

Access to the proposed leasehold is by boat. The proposed leasehold can also be accessed by floatplane.

Access To and Along Navigable and Public Waters:

Nearly all shore and tide lands in the State of Alaska are subject to a To and Along Easement under AS 38.05.127 and 11 AAC 51.045. The purpose of this easement is to uphold the constitutional right of the public to have free access to, and use of, the state’s waterways. At the proposed leasehold, the Along easement is 50 feet seaward from the line of mean high water (MHW).

Public Trust Doctrine:

Pursuant to AS 38.05.126 all authorizations for this site will be subject to the principles of the Public Trust Doctrine; specifically, the right of the public to use navigable waterways and the land beneath them for: navigation, commerce, fishing, hunting, protection of areas for ecological studies, and other purposes. These rights must be protected to the maximum extent practicable while allowing for the development of this project. As such, SCRO is reserving the right to grant other authorizations to the subject area consistent with the Public Trust Doctrine.

Lease Discussion:

CAS submitted an aquatic farm application for a DNR aquatic farm lease to cultivate Pacific oysters on April 30, 2017. In December 2018 CAS submitted an updated application in response to a request for additional information from the aquatic farm coordinator of DMLW.

The proposed lease site will be comprised of one parcel, covering an area of approximately 4.13 acres. CAS proposes to use a grow-out raft and tray culture system for cultivating Pacific oysters.

The parcel will hold twenty 24-feet by 24-feet grow-out rafts. Each grow-out raft will have 80 openings to suspend stacks of 10 trays for 800 trays per raft. Vexar grow-out bags will be used to contain the small spat during initial grow-out phases. The trays will be suspended 10 trays deep, below the rafts with poly line. The grow-out rafts will be tethered in a longline or anchored individually.

A 30-foot by 30-foot work raft will be used for gear and product maintenance and harvest. The work raft will either be moved to the grow-out rafts to maintain gear or a skiff will be used to access each grow-out raft. A 12-feet by 22-feet enclosed processing facility will be constructed on the concrete raft. The processing facility will be constructed with dimensional lumber, HardiePlank® or cement board siding, and a steel roof. A lightweight davit will be kept on the work raft with a battery-operated winch to lift trays for maintenance, de-fouling, and harvest. The work raft will be secured to a grow out raft.

The anchor system will consist of 6,000-pound anchors for a string of five rafts. One and ½-inch chain and shackles will be used to secure the rafts to the anchors. No shore ties will be required for the designed anchoring system. The parcel site will be accessed from the Starrigavin boat launch and the Cove Marina in Sitka via boat.

The proposed aquatic farmsite operation must be in the overall best interest of the State before an authorization may be issued. Factors that are to be considered in this decision are identified in 11 AAC 63.050(b). These factors are addressed above and include consideration of land management policies for the project area, existing uses, public access to and along public waters, and the Public Trust Doctrine.

Pursuant to 11 AAC 63.030(b), the development plan submitted with an aquatic farmsite lease application “must result in commercial use of the site beginning no later than the fifth year of the lease operations and continuing for the rest of the lease term.” At this time the Commercial Use Requirement (CUR) states a farm needs to be making annual sales “of at least \$3,000.00 per acre or fraction of an acre, or \$15,000.00 per farm, whichever is less. Under 11 AAC 63.110(7), the lease will include provisions that failure to meet the CUR constitutes a default and may be cause for revocation, and annual reports of the previous year’s sales are due by January 31st of every year.

The proposed lease will be subject to the terms of DMLW’s standard lease document and any Additional Stipulations based, in part, upon the following considerations.

Operation and Development Plan:

The Operation and Development Plan dated November 15, 2018 is accepted by SCRO as complete but may be subject to change based on agency and public review. Should the proposed lease be granted, it is anticipated that the Development Plan will need to be updated throughout the life of the lease as activities and/or infrastructure are added or subtracted. All updates must be approved, in writing, by SCRO before any construction, deconstruction, replacement of infrastructure, or change in activity will be permitted. SCRO reserves the right to require additional agency review and/or public notice for changes that are deemed by SCRO to be beyond the scope of this decision.

Hazardous Materials and Potential Contaminants:

No hazardous materials or fuel will be stored on the leasehold.

The use and storage of all hazardous substances must be done in accordance with existing federal, state and local laws. Debris (such as soil) contaminated with used motor oil, solvents, or other chemicals may be classified as a hazardous substance and must be removed from the sites and managed and disposed of in accordance with state and federal law.

Lease Performance Guaranty (bonding):

In accordance with AS 38.05.083(e), CAS will be required to submit a performance guaranty for the lease site.

- **\$2,500.00 Performance Bond:** This bond will remain in place for the life the proposed lease. The bond amount is based upon the level of development, amounts of hazardous material/substances on site, and the perceived liability to the state. This bond will be used to insure the applicant's compliance with the terms and conditions of the lease issued for their project. This bond amount will be subject to periodic adjustments and may be adjusted upon approval of any amendments, assignments, re-appraisals, changes in the development plan, changes in the activities conducted, or changes in the performance of operations conducted on the authorized premises, and as a result of any violations to one or more of the authorizations associated with this project.
- **Reclamation Bond:** SCRO is reserving the right to require a reclamation bond due to non-compliance issues during the term of the lease or near the end of the life of the project.

Insurance:

In accordance with 11 AAC 96.065, CAS will be required to submit proof of liability insurance to SCRO, with the State of Alaska listed as a "NAMED" insured party. CAS will be responsible for maintaining such insurance throughout the term of the lease.

Survey:

In accordance with AS 38.04.045, this short-term lease does not require a survey. However, the State of Alaska reserves the right to require one in the future should the need arise due to changes in statutes or increased use of the area. CAS has submitted GPS coordinate point(s) for the four corners of the proposed leasehold.

Compensation/Appraisal:

DMLW has approved a lease fee schedule for aquatic farm sites that meet the conditions listed within the schedule. The most current lease fee schedule will be used to establish the fair market rental each lessee must pay. Fees are subject to adjustment per AS 38.05.083(c). The current annual rate for aquatic farms up to 30 acres in size is \$450.00 for the first acre or partial acre and \$125.00 for each additional acre or partial acre. In accordance with the Aquatic Farmsite Fee Schedule, Report No. 2522-13, a breakdown of the lease fee will be as follows:

$$4.13 \text{ acres } (1 \times \$450) + (4 \times \$125) = \textbf{\$950.00/per year}$$

The applicant has the option to have an appraisal done, at the applicant's expense, before the lease is issued if the applicant does not agree to use the DNR approved fee schedule. If an applicant opts for an appraisal, the appraisal must be approved by DNR's Appraisal Unit. The appraisal will establish the fair market rental for the lease and the fee schedule will no longer be an option. The parcel may need to have an approved Alaska Tidelands Survey to accomplish the appraisal. If a survey is required, the cost will be incurred by the applicant.

Assignment of Lease:

The proposed lease, if issued, may be transferred or assigned to another individual or corporation **only** with prior written approval from the State of Alaska. A lease will not be assigned to an entity if that entity does not meet the statutory requirements of the lease or the lease is not in good standing. DMLW reserves the right to amend the terms of the lease prior to assignment.

Reclamation:

In accordance with AS 38.05.090(b), all lessees must restore their lease sites to a "good and marketable condition" within 120 days after the termination of their lease. What level of reclamation constitutes as being "good and marketable" is at the discretion of SCRO. SCRO reserves the right to require a reclamation bond at any time.

Agency Notice:

An Agency Review was conducted for a 20-day period starting on March 30, 2018. The deadline for agency comments was April 18, 2018. The following agencies were included in the review:

The following agencies will be included in the review:

- DNR DMLW - Mining
- DNR DMLW - Water
- DNR Southeast Land Office
- DNR Office of History and Archaeology/SHPO
- DNR Natural Resource Conservation and Development Board
- DNR Division of Parks and Outdoor Recreation
- DNR Division of Oil and Gas
- DNR DMLW - Realty Services
- Alaska Department of Fish and Game (ADF&G) - Habitat
- ADF&G - Aquatic Farm Coordinator
- Department of Environmental Conservation (DEC) - Shellfish
- Department of Transportation and Public Facilities
- U.S. Forest Service -Tongass National Forest
- U.S. Fish and Wildlife Service
- U.S. Army Corp of Engineers
- National Oceanic and Atmospheric Administration
- U.S. Environmental Protection Agency
- U.S. Coast Guard
- City and Borough of Sitka

Agency Notice Comment(s):

During the Agency Review, SCRO received comments from three agencies.

ADF&G Comments:

ADF&G completed a preliminary review and determination of the proposed aquatic farm. In a letter to SCRO, several concerns were raised relating to subsistence uses, marine mammals, and invasive species. Stipulations are recommended to be added to the aquatic farm lease and aquatic farm operation permit authorizations, where appropriate, and ADF&G requested that an advisory of the recommendations be provided in the PD that is provided to the applicant and the public. Within ADF&G's letter, there are three comments that are addressed by SCRO below.

ADF&G Comment 1:**Subsistence Uses and Access**

"The project is in an area where subsistence herring egg harvests has been documented. Stipulations are recommended to decrease the risk of adversely effecting established subsistence use of herring eggs in the area."

"To prevent the aquatic farm operation from significantly altering an established use of fish and wildlife resources, the following site-specific conditions are recommended for inclusion in applicable aquatic farm authorizations:

- The project/operation may not impede access to plants, fish, and wildlife resources, and shellfish other than the species being cultured at the site to the extent that such access does not disrupt the operation of the aquatic farm, disturb the species being cultured, or damage any of the aquatic farm culture equipment, facilities, or gear.
- Aquatic farm facilities shall be designed, constructed, maintained, operated, and appurtenances placed in a manner and location that does not restrict free public access for commercial or recreational purposes.
- If herring spawn on the site, the herring eggs must not be disturbed or removed. All eggs must be allowed to hatch. The Department of Fish and Game shall be notified within five days of the initial discovery by the operator."

SCRO Response:

DNR statutes and regulations do not specify management of aquatic farms relating to plants, fish, and wildlife resources and management of plants, fish, and wildlife resources are outside the scope of DNR's authority. However, SCRO has shared ADF&G's review comments for the proposed lease with CAS to inform CAS of these concerns.

In addition, pursuant to the lease stipulations No. 4 and No. 26, the stipulations require the lessee to comply with all applicable laws, regulations, ordinances, and order that a public authority has put into effect. The following has been provided by CAS in response to ADF&G Comment 1:

"The proposed project site footprint will allow for access to plant, fish, shellfish, and wildlife resources. The site is designed and will be constructed, maintained, and operated in a manner that does not restrict free public access for commercial and recreational purpose, and there is sufficient area to travel around the site in the proposed location.

CAS and its employees will notify ADF&G within five days of the initial discovery of herring spawn at the site. Herring eggs will not be disturbed or removed from gear and operations will cease until spawn has been completed.”

ADF&G Comment 2:

Marine Mammal

“To minimize the risk of significant marine mammal disturbances and interactions, the following site-specific conditions are recommended for inclusion in applicable aquatic farm authorizations:

- The lease holder/permit holder will use current best-known practices to minimize the risk of disturbing marine mammals by regular maintenance of farm structures, including:
 - a) keeping lines secured and anchor wraps under tension,
 - b) limiting the use of underwater lighting,
 - c) ensuring waste material and debris are collected and disposed of correctly,
 - d) using caution when operating vessels, and
 - e) directing farm workers to avoid interacting with or feeding marine mammals.
- The lease holder / permit holder is advised to:
 - a) consult with the NMFS to have gear on standby that could be available to a trained responder if an entanglement event were to occur, and
 - b) make lines more easily detectable in the water column (Note¹: The use of red and orange vs green or black rope, may be detected at further distances by some species (Kraus et al. 2014).)
- Any marine mammal entanglements should be immediately reported to the department’s aquatic farming coordinator, phone – (907) 465-6150 and National Marine Fisheries Service Alaska 24 hr. Stranding Hotline, phone – (877) 925-7773.”

SCRO Response:

DNR statutes and regulations do not specify management of aquatic farms relating to marine mammals, and management of marine mammals are outside the scope of DNR’s authority. However, DNR has shared ADF&G’s review comments for the proposed lease with CAS to inform CAS of these concerns. In addition, pursuant to the lease stipulations No. 4 and No. 26, the stipulations require the lessee to comply with all applicable laws, regulations, ordinances, and order that a public authority has put into effect.

ADF&G Comment 3:

Potential introduction of invasive species

“To minimize the potential introduction of invasive species, the following site-specific conditions are recommended for inclusion in applicable aquatic farm authorizations:

- The lease holder/permit holder will implement best management practices to prevent the introduction or spread of aquatic invasive species that can occur when aquatic farm activities translocate gear and product including:
 - a. Any previously-used in-water infrastructure must be inspected for nonindigenous or invasive species prior to relocation. If non-native species are detected, infrastructure

¹Studies were conducted showing that the right whale sensitivity is tuned to perceived red and orange which are detectable at greater distances.

must be decontaminated prior to translocation by removing it from the water for decontamination. It may be left “high and dry” for at least 30-days or thoroughly washed with hot, pressurized water prior to being re-submerged. After decontamination measures have been taken and prior to deployment, infrastructure should be surveyed to ensure decontamination efforts were effective. Contact the Invasive Species Coordinator at (907) 465-6183 for more details.

- b. Use “hot dipping” protocols to remove fouling organisms from Pacific oysters; this is a common and effective practice in aquatic farming.
 - c. Develop a monitoring schedule to periodically inspect in-water infrastructure for invasive species, such as *Didemnum vexillum*.
 - d. Develop a response plan that identifies steps for quickly responding to observance of invasive species in any aspect of in-water operations.
- Any observations of unusual, unknown, nonindigenous, or invasive organisms should be immediately reported to the ADF&G aquatic farming coordinator (907) 465-6150; dfg.dcf.aquaticfarming@alaska.gov) and to the ADF&G invasive species coordinator (907) 465-6183; dfg.dsf.invasivespecies@alaska.gov.

Please advise the applicant that if there are any questions about the Marine Mammal Protection Act and authorized activities should be directed to NOAA Fisheries Alaska Region Protected Resources Division at 907-586-7235 or NOAA Fisheries Headquarters at 301-713-2322. The project is also within the range of the northern sea otter, managed by the U.S. Fish and Wildlife Service (FWS). For questions about authorized activities for FWS managed species please call 1-800-358-2104.”

SCRO Response:

DNR statutes and regulations do not specify management of invasive species and marine mammals, and management of invasive species and marine mammals is outside the scope of DNR’s authority. However, DNR has shared ADF&G’s review comments for the proposed lease with CAS to inform CAS of these concerns. In addition, pursuant to the lease stipulations No. 4 and No. 26, the stipulations require the lessee to comply with all applicable laws, regulations, ordinances, and order that a public authority has put into effect.

USDA Forest Service, Tongass National Forest, Sitka Ranger District, Comment:

The Tongass National Forest (TNF), Sitka District Ranger provided comments given the site location is adjacent to National Forest System lands on the Signaka Islands, with concern related to National Forest users' ability to safely anchor, passage between islands, and access to uplands. Within the TNF’s letter, there are four comments that are addressed by SCRO below.

TNF Comment 1:

“Safe anchorage

The constructed features of an aquatic farm may interfere with the ability of National Forest users to locate and use safe anchorages. I request any infrastructure be clearly marked and opportunities for safe anchorages be maintained.”

SCRO Response:

Nearly all shore and tidelands in the State of Alaska are subject to a To and Along Easement under AS 38.05.127 and 11 AAC 51.045. The purpose of this easement is to uphold the constitutional right of the public to have free access to, and use of, the State's waterways. The issuance of this aquatic farm lease will not block reasonable access to state navigable water. The along easement extends 50 feet seaward from the line of mean high water. The following has been provided by CAS in response to TNF Comment 1:

"All grow-out rafts will be clearly shown to be oyster gear. There are many opportunities for safe anchorage near the Signaka Islands in the area outside of the proposed aquaculture farm site. Specifically, just north of the site location are multiple safe anchorages in 8 to 11 fathoms of water, out of the prevailing winds. Like-wise there are multiple anchorages located to the west and south of the site that allow for safe anchorage in 3 to 7 fathoms of water."

TNF Comment 2:"Passage between islands and into a cove"

The waterways between the Signaka Islands are frequently used to access National Forest System land. I would like to see the routes through these passages maintained."

SCRO Response:

The following has been provided by CAS in response to TNF Comment 2:

"The proposed aquatic farm location allows for sufficient distance and water depth around the site for vessel traffic to pass around the site."

TNF Comment 3:"Access to uplands"

Existing upland uses on the Signaka Islands dependent on shoreline access include picnicking, camping, hiking, and hunting. The proposal does not address how access for the public and Forest Service employees will be maintained. A buffer of adequate width and depth at low tide could ensure that access is maintained to the adjacent coastline accessing National Forest System lands.

From experience with aquaculture development adjacent to National Forest System lands, we anticipate that there may be requests in the future to build upland facilities. I want to emphasize that requests for upland use are reviewed on a case-by-case basis. The analysis process is rigorous and can be lengthy, and the decision to authorize use of National Forest System lands is discretionary."

SCRO Response:

CAS has not indicated to SCRO an interest in TNF upland property use. SCRO has provided CAS the comments from TNF and they are aware of the discretionary nature regarding authorization of National Forest System lands. The following has been provided by CAS in response to TNF Comment 3:

"The proposed aquatic farm location allows for sufficient distance and water depth around the site for vessel traffic to pass around the site. A buffer of 50 to 75 feet from the site location to shore will be maintained with water column depths ranging from 1 to 10 fathoms of water."

TNF Comment 4:**“Cultural site**

There is at least one documented upland cultural site near the project area. I recommend that the Alaska Department of Natural Resources formally consult with the Sitka Tribe of Alaska regarding this proposal.”

SCRO Response:

The Sitka Tribe of Alaska will be notified of the potential lease and given time to provide comments and information during the 30-day public comment period that commences after this PD is signed by the SCRO Regional Manager.

City and Borough of Sitka Comment:

The City and Borough of Sitka (CBS) submitted comments indicating that the CAS proposed 10-year aquatic farmsite leasehold “requires careful consideration of matters of local concern pursuant to the portion of the Sitka Coastal Management Plan (SCMP) enforceable policies adopted by ordinance into the Sitka General Code. It is the goal of the SCMP ‘to support the development of mariculture and aquaculture activities while minimizing adverse impacts to existing fish and seafood resources.’ The SCMP’s objective is ‘to provide for and regulate the orderly development of aquaculture and mariculture activities and industries in order to encourage new economic development while protecting and enhancing the public resource.’ The City and Borough of Sitka is in support of mariculture and aquaculture as long as the specific area is not in conflict with competing uses such as recreation, subsistence and commercial uses.” CBS provided applicable policies with staff analysis, as well as potential concerns.

Within the CBS’s letter, there are 19 comments that are addressed by SCRO below.

CBS Comment 1:

“The proposed size is located within the Siginaka Islands Special Management Area and designated Recreational Use Area and noted by the SCMP “as a subsistence harvest area of rare and highly prized herring roe on neh, a type of seaweed. In addition, the Siginakas receive intensive use in the summer by recreational boaters for picnicking and camping, as well as tour boats under Forest Service Special Use Permit.”

SCRO Response:

If the proposed lease is authorized, physical access to the shoreline and uplands will be maintained and reasonable accommodations will be met by CAS. ADF&G commented about herring and those comments have been shared with CAS and are included within this PD that the project is in an area where subsistence herring egg harvests have been documented. CAS addressed the comment within this PD in response to ADFG Comment 1. Similarly, CAS addressed comments by the TNF regarding recreational access within the response to the TNF Comment 3 within this PD.

CBS Comment 2:

“As defined by the SCMP the public benefit from this private venture will include socioeconomic gains such as new jobs, renewable resources and resource development. However, there could be impact to the public by changes to the aesthetic and physical nature of the area that may block or harm the ability to use it for eco-tourism, recreation, subsistence, etc.

Being public lands, there are not direct upland property owners being impacted.”

SCRO Response:

The public may benefit from the potential employment opportunities and access to fresh Alaska oysters. Adverse impacts such as the effects of access is addressed in SCRO’s responses to the Tongass National Forest comments within this PD. The impact to upland land owners or users is also addressed in SCRO’s responses above to the Tongass National Forest comments.

CBS Comment 3:

“The proposal is for a 10 year lease. This is not a short-term lease. Less priority consideration should be given to the proposed long-term lease.”

SCRO Response:

DNR by regulation (11 AAC 63.100(c)) may authorize aquatic farm leases for a 10-year term.

CBS Comment 4:

“The complexity of the facility, with greater scrutiny being directed toward a facility taking up a large area and/or having broader or more impacts than a small facility would generate.

a. The size is 4.13 acres.”

SCRO Response:

A 4.13-acre aquatic farm is not considered a large aquatic farm in comparison to other existing and proposed Alaska aquatic farms.

CBS Comment 5:

“The proposed location could impact navigation around areas used for tourism, recreation, commercial fishing, and subsistence.”

SCRO Response:

Within the proposed lease agreement there will be language citing the Public Trust Doctrine which guarantees public access to and the public right to use, navigable and public waters and the land beneath them for navigation, commerce, fishing, and other purposes. If the lease is issued, it will be subject to the principles of the Public Trust Doctrine regarding navigable or public waters. The lessor reserves the right to grant other interests to the leasehold consistent with the Public Trust Doctrine. Please see the responses to ADF&G Comment 1 and TNF Comments 1, 2, and 3 for further related responses to this comment.

CAS provided the following response to this comment: “The proposed aquatic farm location allows for sufficient distance and water depth around the site for vessel traffic to pass around the site. A buffer of 50 to 75 feet from the site location to shore will be maintained with water-column depths ranging from 1 to 10 fathoms of water.”

CBS Comment 6:

“Upon review, it appears that this application does fall within a Special Management Area and Designated Recreational Use Area per Map NB-13, entire Siginaka Islands group from mean high tide to mean lower low tide, including contiguous waters between the islands.

Federal lands are excluded.”

SCRO Response:

The existing uses in this Special Management Area will be acknowledged if the proposed lease is authorized.

CBS Comment 7:

“Here the proposed anchoring incorporates multiple concrete anchors at 6,000 pounds each. No shore ties are proposed. The length from anchor to anchor will be 600 linear feet. Staff requests any anchoring be sufficient to anchor the proposed size.”

SCRO Response:

The CBS comment is accepted. CAS’ response is that anchoring will exceed requirements for the proposed aquatic farm size. No shore ties will be required for the designed anchoring system.

CBS Comment 8:

“Staff would suggest that a performance bond and insurance be included in any lease to guarantee that any infrastructure would be removed after the lease expired or upon any circumstance where removal would be required.”

SCRO Response:

The CBS comment regarding a performance bond is accepted. SCRO requires a form of security, such as a bond, cash deposit, certificate of deposit, or other form of security acceptable to the commissioner from all authorized leaseholders (11 AAC 63.080). Proof of commercial general liability coverage and workers’ compensation coverage is required at a minimum for aquatic farm lessees (11 AAC 96.065).

CBS Comment 9:

“Policy 3.1: A project within designated recreational use areas as shown on the Special Management Area Figures in Chapter V must avoid, minimize, or mitigate adverse impacts to the physical features upon which the recreation depends. Physical features include ocean view, water access, bird foraging, forested uplands, trees and vegetation, and fish and shellfish.”

SCRO Response:

Ocean views will not be obstructed with the proposed aquatic farm lease. Nearly all shore and tide lands in the State of Alaska are subject to a To and Along Easement under AS 38.05.127 and 11 AAC 51.045 to uphold the constitutional right of the public to have free access to, and use of, the state’s waterways. SCRO has determined that the issuance of this aquatic farm lease will not block reasonable access to state navigable water. The along easement extends 50 feet seaward from the line of mean high water.

Also, the right of the public to use navigable waterways and the land beneath them for: navigation, commerce, fishing, hunting, protection of areas for ecological studies, and other purposes is protected by the Public Trust Doctrine, pursuant to AS 38.05.126. All authorizations for this site will be subject to the principles of the Public Trust Doctrine.

Forested uplands, trees and vegetation and foraging birds will not be adversely within the proposed aquatic farm lease in state tidelands. The proposed lease will occupy 4.13-acres of tide and submerged lands, leaving the majority of the Sitka Special Management Area and Designated Recreational Use Area unaffected. The following has been provided by CAS in response to CBS Comment 9:

“The proposed aquatic farm site location has a minimal footprint in relation to the overall Siginaka Island chain. Multiple opportunities exist for recreational opportunities in island chain for ocean viewing, water access, bird foraging, forest uplands, trees and vegetation, and fish and shellfish. CAS’ operations will have a minimal impact on all recreation activities.”

CBS Comment 10:

“Policy 3.2: Within designated recreational use areas as shown on the Special Management Area Figures in Chapter V, water access to, from and along lakeshores, streams, shorelines, tidelands, estuaries and saltwater wetlands for recreational use shall be enforced to the maximum extent practicable, through easements, dedications, or other means, except where human health or safety would be at risk.”

SCRO Response:

Nearly all shore and tide lands in the State of Alaska are subject to a To and Along Easement under AS 38.05.127 and 11 AAC 51.045 to uphold the constitutional right of the public to have free access to, and use of, the state’s waterways. SCRO has determined that the issuance of this aquatic farm lease will not block reasonable access to state navigable water. The along easement extends 50 feet seaward from the line of mean high water.

Also, the right of the public to use navigable waterways and the land beneath them for: navigation, commerce, fishing, hunting, protection of areas for ecological studies, and other purposes is protected by the Public Trust Doctrine, pursuant to AS 38.05.126. All authorizations for this site will be subject to the principles of the Public Trust Doctrine.

CBS Comment 11:

“Policy 8.1: The incidental removal of coastal sand and gravel that is integral to an allowable project shall minimize adverse changes to littoral processes of sediment erosion, deposition, and transport.”

SCRO Response:

CBS Comment 7 is accepted. CAS does not plan to remove coastal sand or gravel.

CBS Comment 12:

“SMA 14.1: Tideland uses within the designated Special Management Area, shall be compatible with the recreation nature of the surrounding area.”

SCRO Response:

The right of the public to use navigable waterways and the land beneath them for: navigation, commerce, fishing, hunting, protection of areas for ecological studies, and other purposes is protected by the Public Trust Doctrine, pursuant to AS 38.05.126. All authorizations for this site will be subject to the principles of the Public Trust Doctrine.

CBS Comment 13:

“Potential for contamination of wild stocks, disease, predator problems, and other biological problems.”

SCRO Response:

DNR statutes and regulations do not specify management of aquatic farms relating to biological issues, and this is outside the scope of DNR’s authority. SCRO has shared CBS’s comments for the proposed lease with CAS to inform CAS of these concerns. Pursuant to statutes applicable to ADF&G (AS 16.40.100-109), an applicant for an aquatic farmsite lease from DNR must also obtain an aquatic farm permit from ADF&G.

CBS Comment 14:

“Water quality issues related to sediments, algae growth, excess food and waste disposal, etc.”

SCRO Response:

Regarding water quality issues, pursuant to the lease stipulations No. 4 and No. 26, the lessee is required to comply with all applicable laws, regulations, ordinances, and order that a public authority has put into effect. Water quality issues are under DEC authority.

CBS Comment 15:

“Use of toxicants and pharmaceuticals.”

SCRO Response:

The application did not include a request or need for the use of toxicants and pharmaceuticals at the proposed leasehold.

CBS Comment 16:

“Elimination of, or impacts on, alternate uses of the site and surrounding areas, including recreation, tourism, commercial uses, and subsistence.”

SCRO Response:

SCRO consulted with CAS regarding site selection. The location was carefully selected by CAS for a minimal impact on existing uses. Within the proposed lease agreement there will be language citing the Public Trust Doctrine which guarantees public access to and the public right to use, navigable and public waters and the land beneath them for navigation, commerce, fishing, and other purposes. If the lease is issued, it will be subject to the principles of the Public Trust Doctrine regarding navigable or public waters. The lessor reserves the right to grant other interests to the leasehold consistent with the Public Trust Doctrine.

CBS Comment 17:

“Damage caused by inadequate skills and knowledge by the developer to adequately develop a mariculture operation.”

SCRO Response:

SCRO carefully adjudicates the aquatic farm program application and development plan, including the ability to meet the commercial use standard required by 11 AAC 63.030. There are measures that will be taken in the event of poor performance. The following has been provided by CAS in

response to this comment: "Coastal Alaska Seafoods LLC will be using mariculture best practices from other successful regional mariculture operations."

CBS Comment 18:

"Difficulties in siting a mariculture facility so that good tidal flushing, sufficient depth to minimize sedimentation, "Floating Facilities" requirements, no blockage of navigation or access, no major adverse impacts on significant wild stocks or anadromous streams, alternative locations, permission of the upland owner, sufficient space to assure no impact from adjacent users, and other factors are all met."

SCRO Response:

The upland owner is the Tongass National Forest who has provided a review and comment of this aquatic farm proposal and SCRO has provided responses to those comments in this decision. Navigation, and access and location selection are addressed in SCRO's responses to the above comments. DNR statutes and regulations do not specify management of aquatic farms relating to biological and water quality issues, and this is outside the scope of DNR's authority. Biological and water quality issues are under ADF&G and DEC authority. The following has been provided by CAS: "CAS will provide sufficient distance of 50 to 75 feet from shoreline, such that blockage of navigation or access is not an issue. The upland owner is the Tongass National Forest who has provided a review and comment of this aquatic farm proposal and CAS has provided responses to those comments. CAS closely followed ADF&G requirements of site suitability and discounted alternative site locations due to potential impacts to adjacent users."

CBS Comment 19:

"In summary, the for-profit mariculture industry is growing in Alaska. Potentially, mariculture could prove to be a valuable addition to Sitka's economy, but care must be exercised to ensure that it will not cause major adverse impacts to existing resources, uses, and activities. The City and Borough of Sitka is in support of mariculture and aquaculture as long as the specific area is not in conflict with competing uses such as recreation, subsistence and commercial uses.

CBS recommends addressing trash and oil/gas spill procedures, environmental concerns, and invasive species awareness/control as other areas in Sitka Sound have been plagued with didemnum vexillum and botryllid tunicates.

The City and Borough of Sitka would have no basis for objection to the issuance of this permit as long as all floating facilities policies (as referenced above) are met. CBS has no direct enforcement mechanism to ensure compliance on State tidelands, even though the enforceable policies clearly state the City's intent."

SCRO Response:

The CBS comment is accepted and has been addressed by SCRO in the responses to Comments 1 through 18.

Public Notice of the Preliminary Decision:

Pursuant to AS 38.05.945, this PD will be advertised for 30-day public comment period. Notice will be posted on the Alaska Online Public Notice System at:

<http://aws.state.ak.us/OnlinePublicNotices/Default.aspx> and the post offices located in Sitka, Angoon, and Kake. Courtesy notices will also be mailed or emailed to neighboring property owners, DNR permit/lease holders, and other interested parties on February 7, 2019 for a 30-day public comment period.

Comment(s):

This decision is subject to both public and agency comments and all comments received by the comment deadline will be considered in the FFD. Only those who comment and the applicant have the right to appeal the FFD.

**Written comments about this project must be received in this office no later than
5:00 PM on March 13, 2019 to be considered.**

To submit comments, please choose one of the following methods:

Postal: Department of Natural Resources
Southcentral Region Office
ATTN: Karen Cougan
550 West 7TH Avenue Suite 900C
Anchorage, AK 99501-3577
Phone: 907-269-8543
E-mail: karen.cougan@alaska.gov
Fax: 907-269-8913

If public comments result in significant changes to the PD, additional public notice may be given. To be eligible to appeal the FFD, a person must provide written comments during the PD comment period per AS 38.05.035(i)-(m).

Signature Page Follows

Recommendation:

DMLW has completed a review of the information provided by the applicant, examined the relevant land management documents, and has found that this project is consistent with all applicable statutes and regulations. DMLW considered three criteria to determine if this project provided the best interest to the State and the development and enjoyment of its natural resources. The criteria include direct economic benefit to the State, indirect economic benefit to the State, and encouragement of the development of the State's resources. This authorization provides a direct economic benefit to the State with the collection of one-time filing fees and yearly rent/fees. The authorization of this lease is in the State's best interest as it furthers economic development of the State's aquatic farm industry. It is recommended that DMLW issue a 10-year lease to CAS.




Karen Cougan, Aquatic Farm Program Coordinator



Date

Preliminary Decision:

It is the determination of the Division of Mining, Land, and Water that it may be in the State's best interest to issue an aquatic farm lease to CAS, as described above. Upon authorization of lease ADL 232900, the applicant will pay the annual lease fee of \$950.00 per year, submit a \$2,500.00 performance bond, and provide proof of liability insurance. This PD shall now proceed to public notice.



Clark Cox, Regional Manager

Southcentral Regional Land Office, Division of Mining, Land & Water



Date

Attachments

Attachment A – Development Plan: General Location Map, Site Plan Maps, Project Description, and Operation and Development Plan (The complete Development Plan is available upon request.)



Attachment A

Development Plan

ADL 232900 Development Plan

Coastal Alaska Seafoods, LLC

Aquatic Farm Application Part B. Project Description Attachment

The proposed aquatic farm site is located north of the community of Sitka within the regional area of Sitka Sound, specifically in the area of the Siginaka Islands, approximately 3 miles northwest of Sitka's furthest northern road system. The United States Forest Service (USFS) is the owner of the adjacent upland properties, known as the Siginaka Islands on either side of the proposed site. Coastal Alaska Seafoods, LLC does not intend to use any of the uplands at this time, all equipment and operations will be within the boundaries of the proposed aquatic farm site.

The proposed aquatic farm site will be 300 feet wide by 600 feet long on state owned submerged lands totaling 4.13 acres. The profile depth of the site at mean low water is approximately 100 foot to 120 foot in main growing area and 50 foot in the NW corner. The parcel will primarily be used to house grow out rafts to grow Pacific Oysters in suspended culture trays and a single work raft for farm production (including an enclosed processing facility), maintenance, and storage of equipment.

The proposed project site footprint will allow for access to plant, fish, shellfish, and wildlife resources. The site is designed and will be constructed, maintained, and operated in a manner that does not restrict free public access for commercial, subsistence, and recreational purpose. The proposed aquatic farm location allows for sufficient distance and water depth around the site for vessel traffic to pass around the site. A buffer of 50-75 feet from the site location to shore will be maintain with a water column depths ranging from 1- 10 fathoms of water.

There are many opportunities for safe anchorage near the Signaka Islands in the area outside of the proposed aquaculture farm site. Specifically, just north of the site location is are multiple safe anchorages in 8-11 fathoms of water out of the prevailing winds. Likewise there are multiple anchorages located to the west and south of the site that allow for safe anchorage in 3-7 fathoms of water.

Coastal Alaska Seafoods, LLC is aware that herring have spawned near the proposed aquatic farm site location. Coastal Alaska Seafoods, LLC and its employees will notify ADF&G within five days of the initial discovery of herring spawn at the site. Herring eggs will not be disturbed or removed from gear and operations will cease until spawn has been completed.

The parcel will hold twenty (20) – 24 foot x 24'6" grow out rafts. The grow out rafts are proposed to be constructed out of regional, non-treated lumber, galvanized fasteners, and two rows of 3 foot x 8 foot foam filled plastic billets for floatation. The rafts will have five 24-inch walkways perpendicular to the foam filled plastic billets. Each grow out raft will have 80 openings to suspend stacks of 10 trays for 800 trays per raft for growing oysters. All grow out rafts will be clearly shown to be oyster gear.

The trays will measure 24 inches x 24 inches x 8 inches deep constructed of 1-inch vinyl coated wire mesh. Vexar grow out bags will be used to contain the small spat during initial grow out phases. The trays will be suspended 10 trays deep; ~ ten feet below the rafts with chain and poly line. The grow out

rafts will be tethered in a long line or anchored individually. Either the work raft will be moved to the grow out rafts to maintain gear or a skiff will be used to access each raft.

The anchor system will consist of 6,000-pound anchors for a string of five rafts. 1 ½ inch chain and shackles will be used to secure the rafts to the anchors. No shore ties will be required for designed anchoring system.

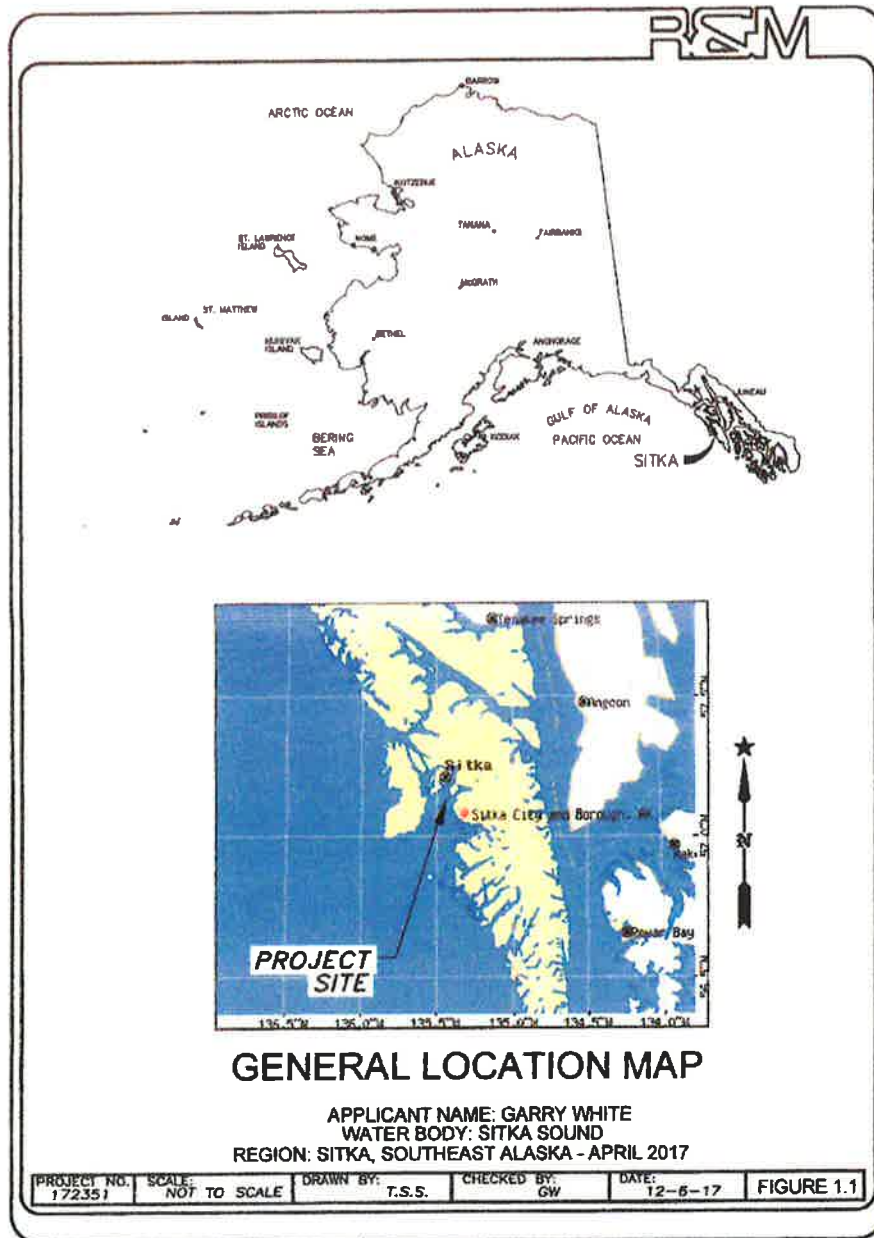
A 30' x 30' work raft will be used for gear and product maintenance and harvest. A 12' x 22' enclosed processing facility will be constructed on the concrete raft. The processing facility will be constructed with dimensional lumber, hardi plank siding, and a steel roof. A lightweight davit will be kept on the work raft with a battery-operated winch to lift trays for maintenance, de-fouling, and harvest. The work raft will be secured to a grow out raft.

In addition to the work raft, gear and equipment will be stored at my primary residence in Sitka when not in use.

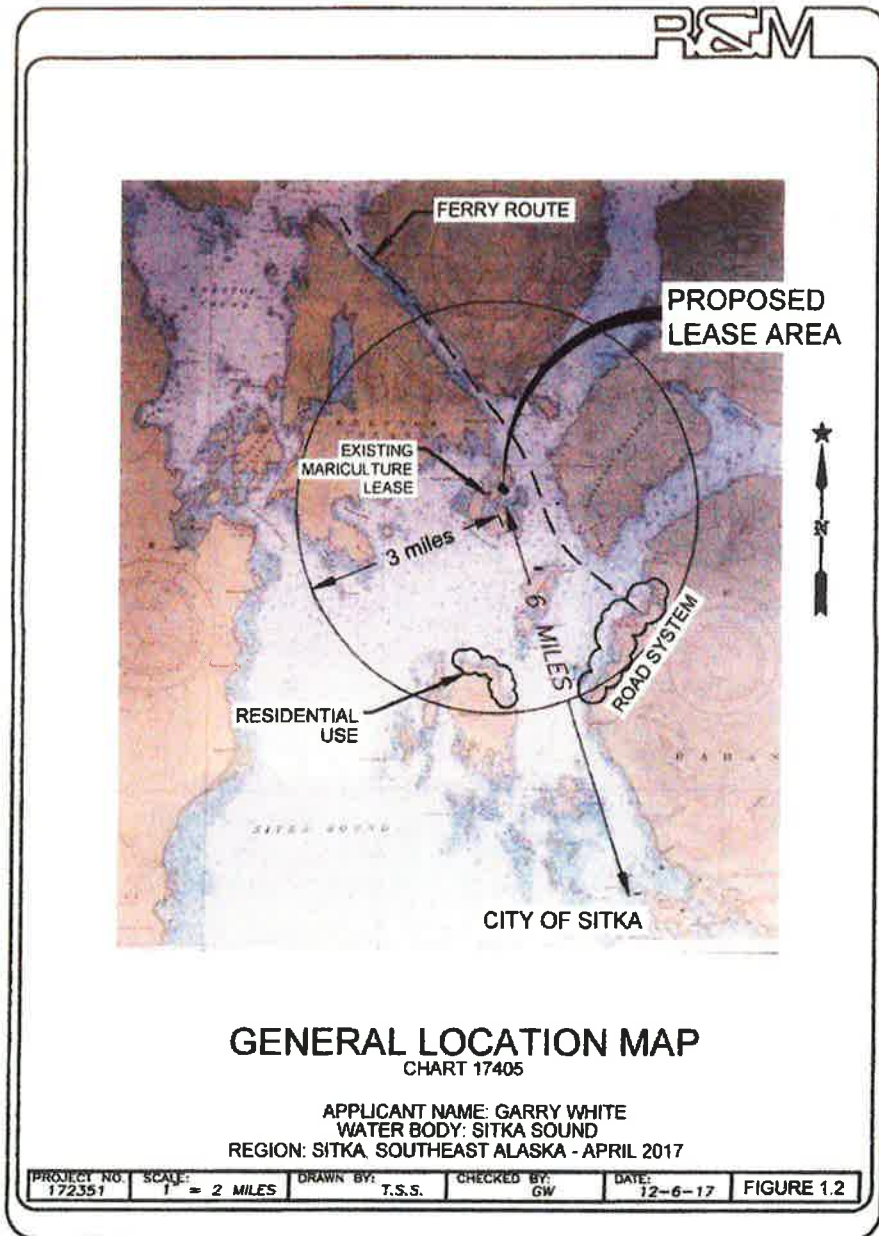
The parcel site was selected, as it is located close to the road system and Starrgavin Boat launch and the Cove Marina for ease in accessing the site in all-weather via boat. The site receives good water flow and is relatively close to Olga Straight, which has a good ebb and flow of water. There are no anadromous fish streams in the area. The site is also out of the main navigation channel and appears to not receive much traffic. The site is protected from ocean swell and winds. The site is located away from fresh water and does not ice up in the winter.

Other regional aquatic farmers have been consulted on the site location and farming methods and operations. The plan is to continue to work with regional aquatic farmers to increase production and work cooperatively to grow the Alaskan mariculture industry.

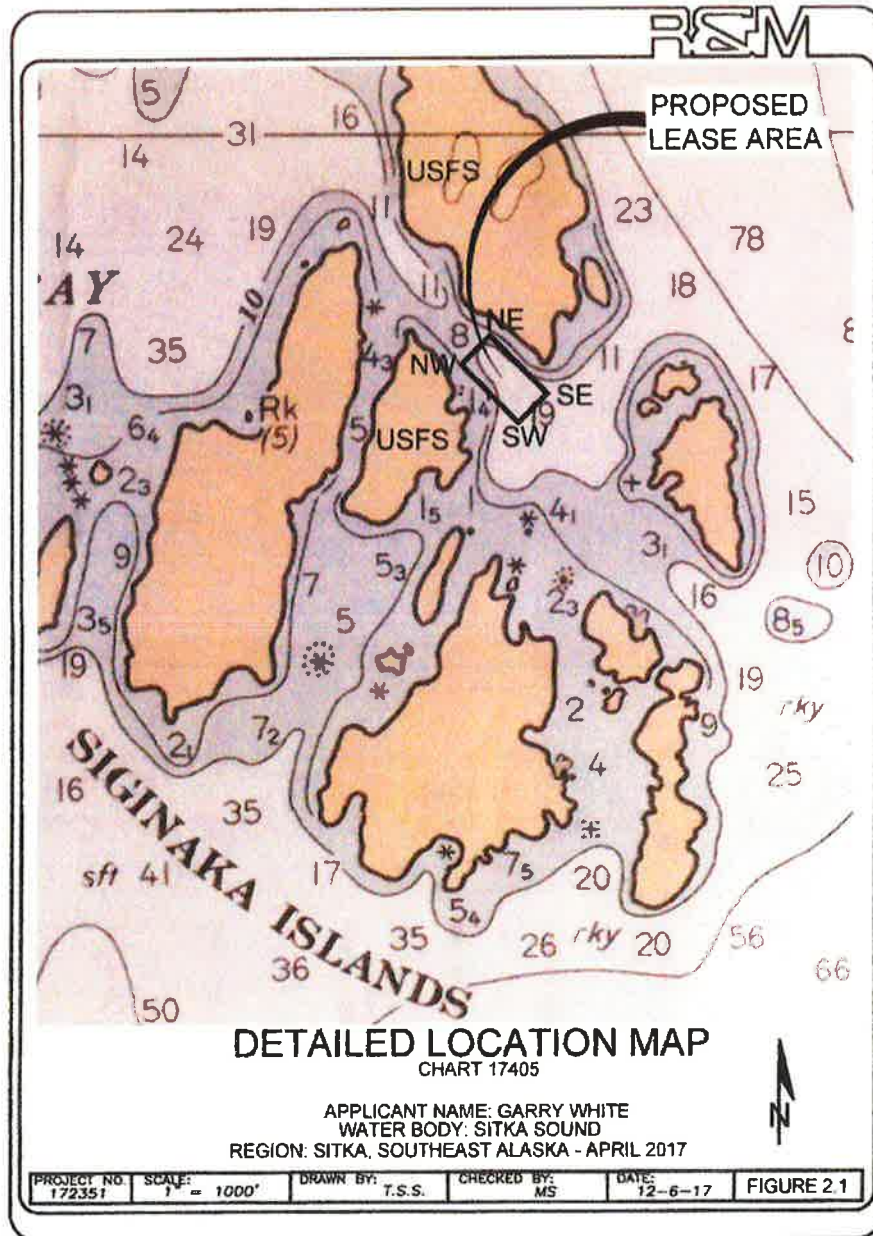
Attachment A Development Plan



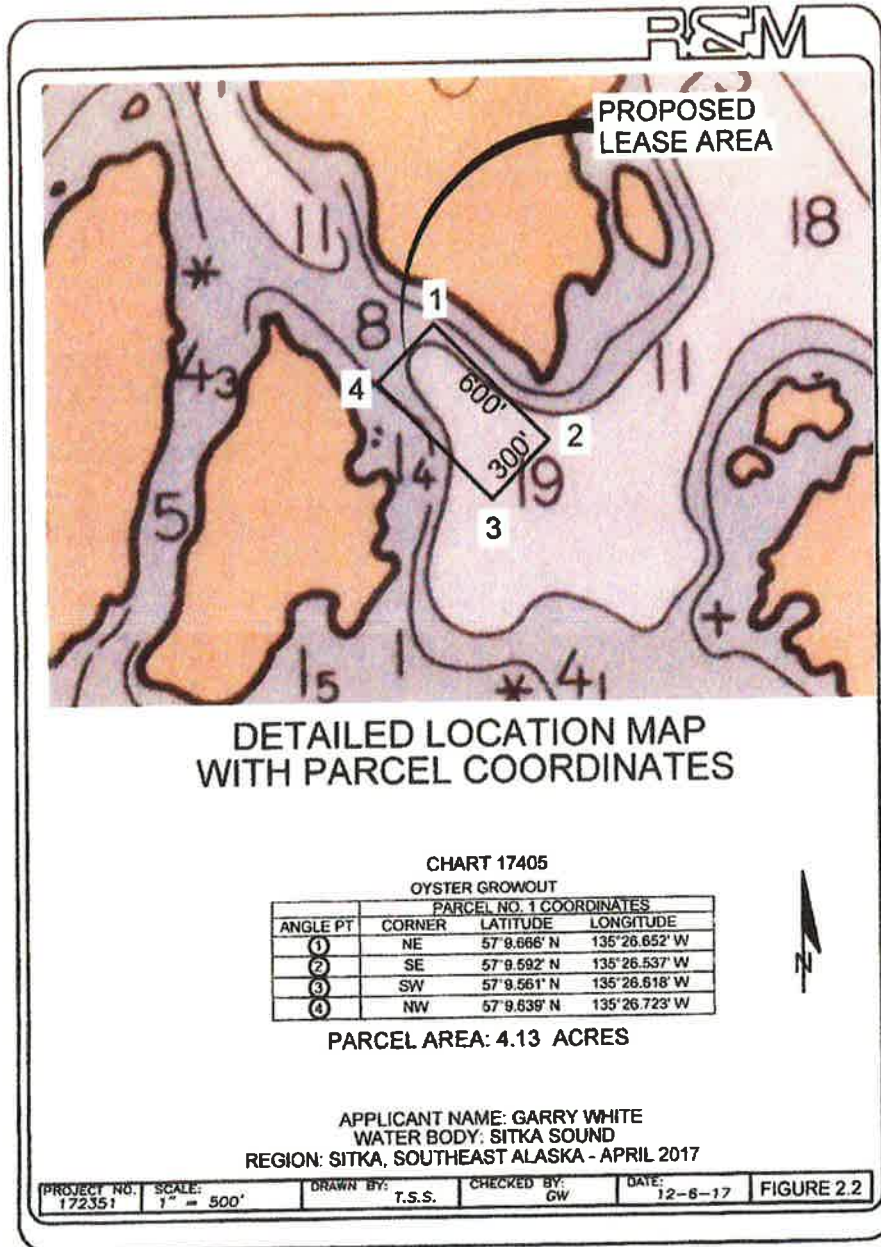
Attachment A Development Plan



Attachment A Development Plan



Attachment A Development Plan



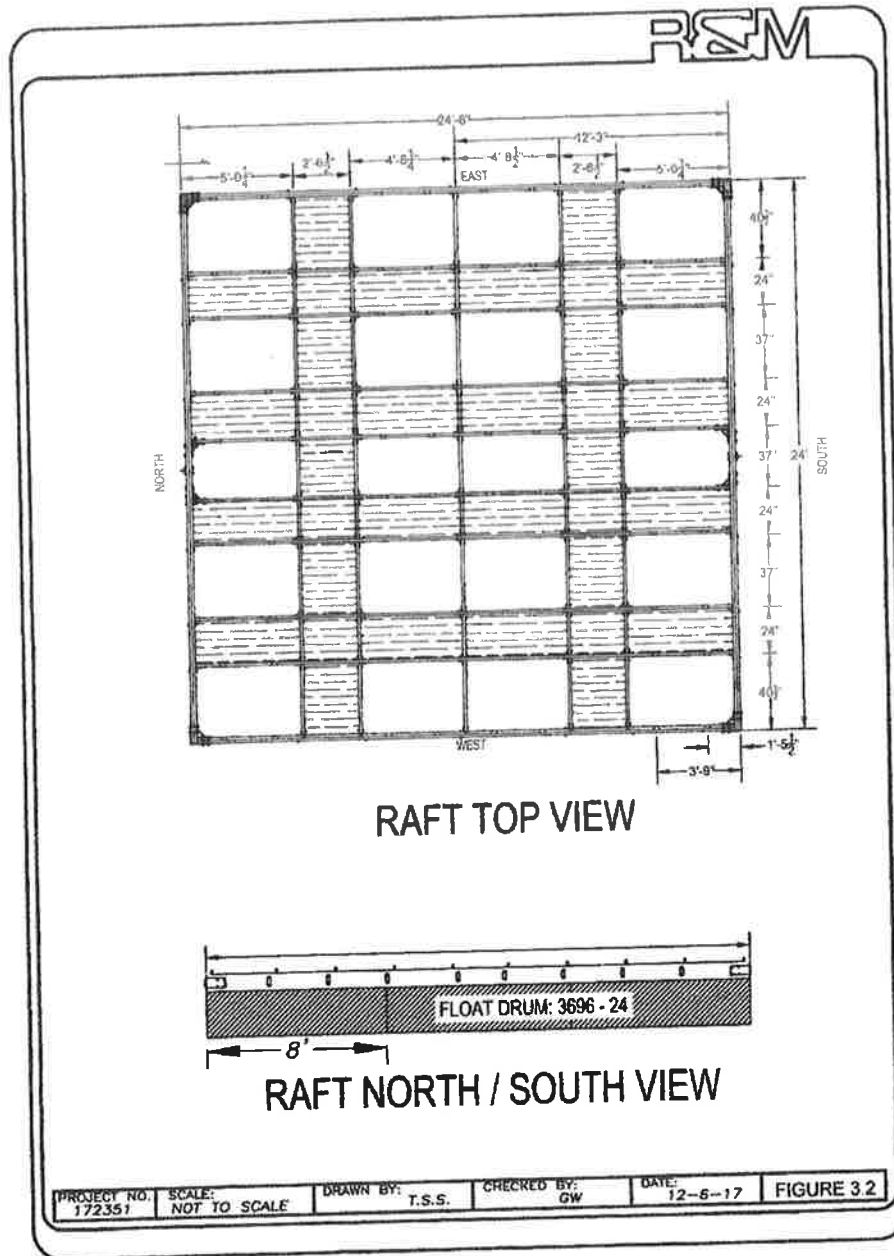
The diagram is a site plan for a farm layout, showing a diamond-shaped area. The vertices are labeled: NE -100 FT, NW -50 FT, SE -120 FT, and SW -120 FT. The area is divided into 20 rafts, each labeled 'TYPICAL OYSTER GROW OUT RAFT 24'x24''. The rafts are arranged in a grid pattern. Dimensions include 300' along the NW-NE edge, 600' along the SE-SW edge, and 30' along the SE-SW edge. The area is labeled '4.13 ACRES'. A 'TYPICAL 6000 LB DANFORTH ANCHOR WITH 3000 LB CONCRETE SURGE BLOCK' is shown. A 'MOBILE 30'x30' WORK RAFT' is also indicated. The text '20 RAFTS' is present. The diagram is titled 'SITE PLAN - FARM LAYOUT'.

SITE PLAN - FARM LAYOUT

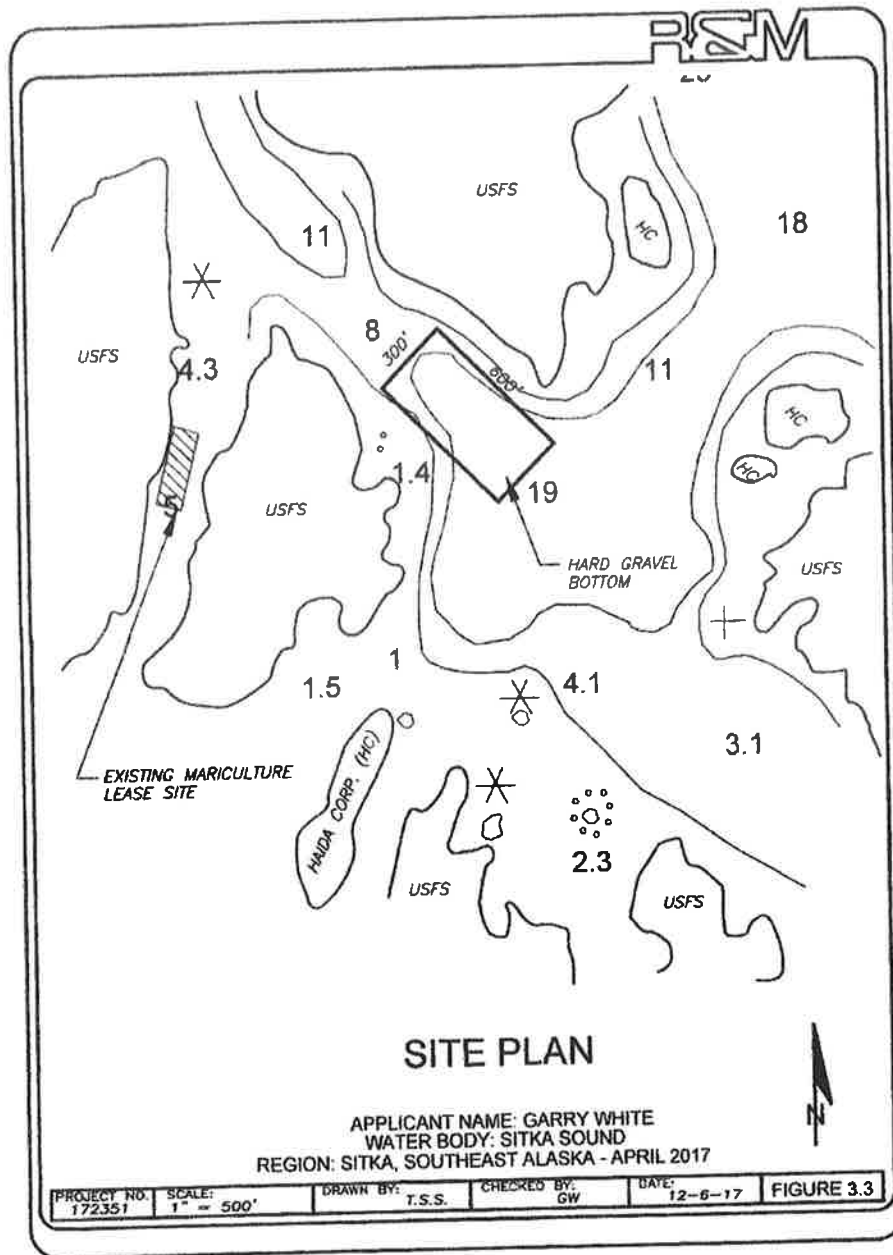
APPLICANT NAME: GARRY WHITE
 WATER BODY: SITKA SOUND
 REGION: SITKA, SOUTHEAST ALASKA - APRIL 2017

PROJECT NO. 172351	SCALE: 1" = 120'	DRAWN BY: T.S.S.	CHECKED BY: GW	DATE: 12-6-17	FIGURE 3.1
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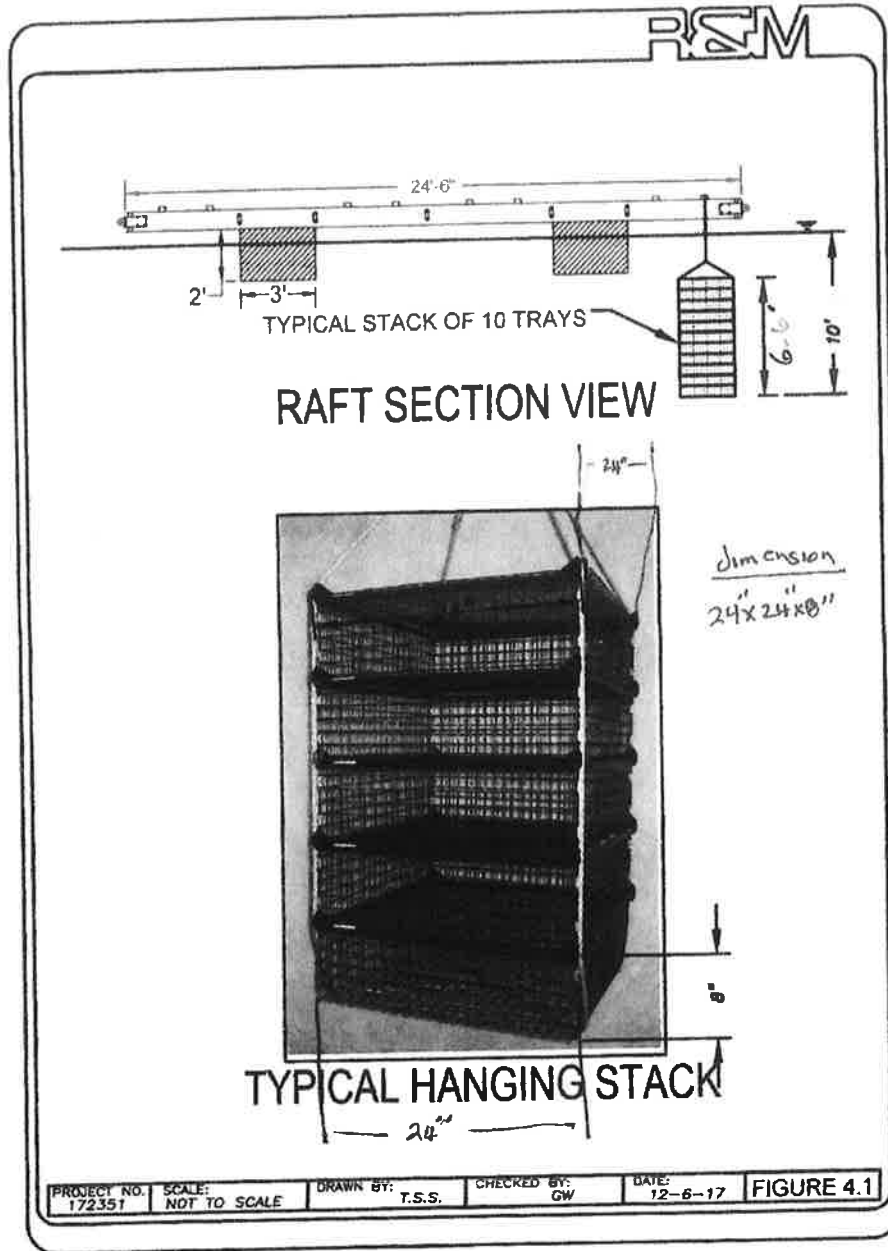
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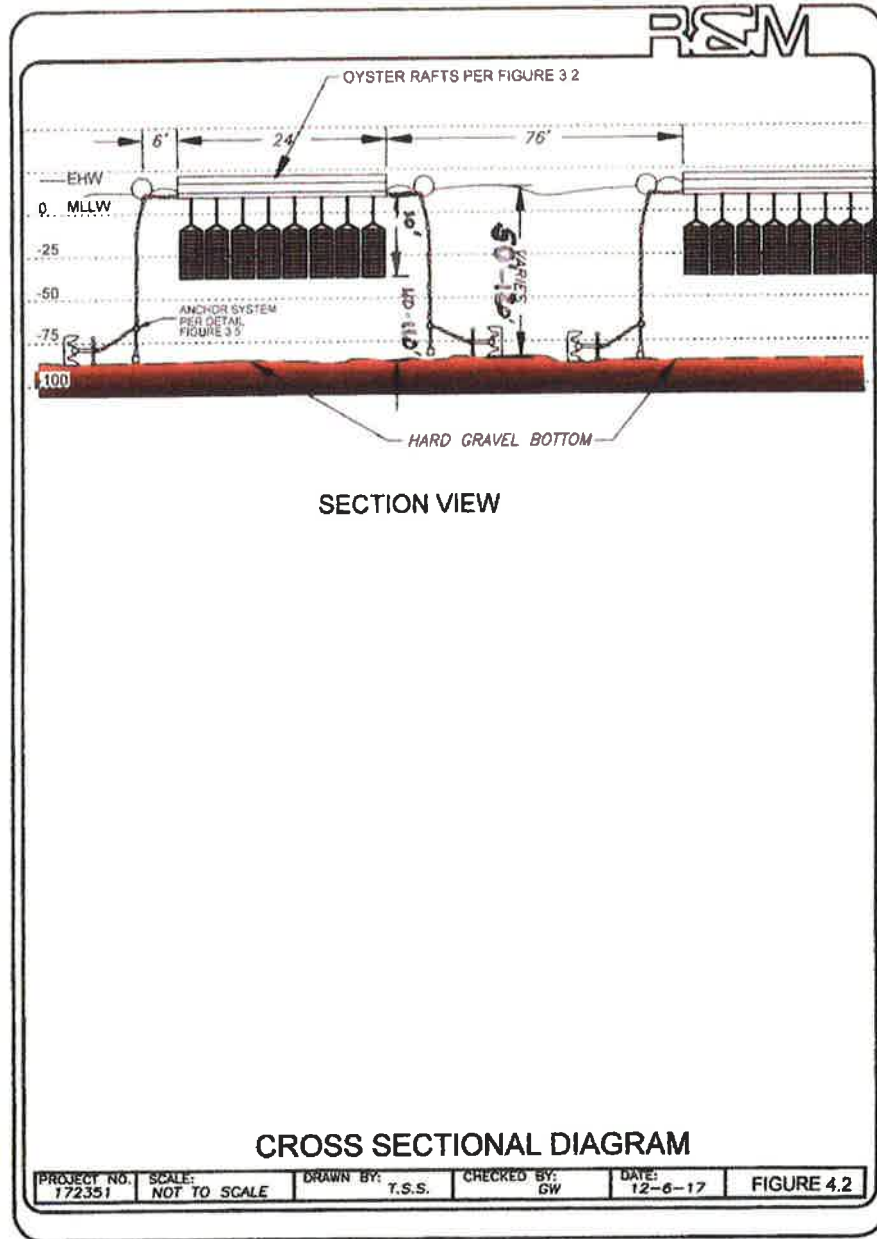
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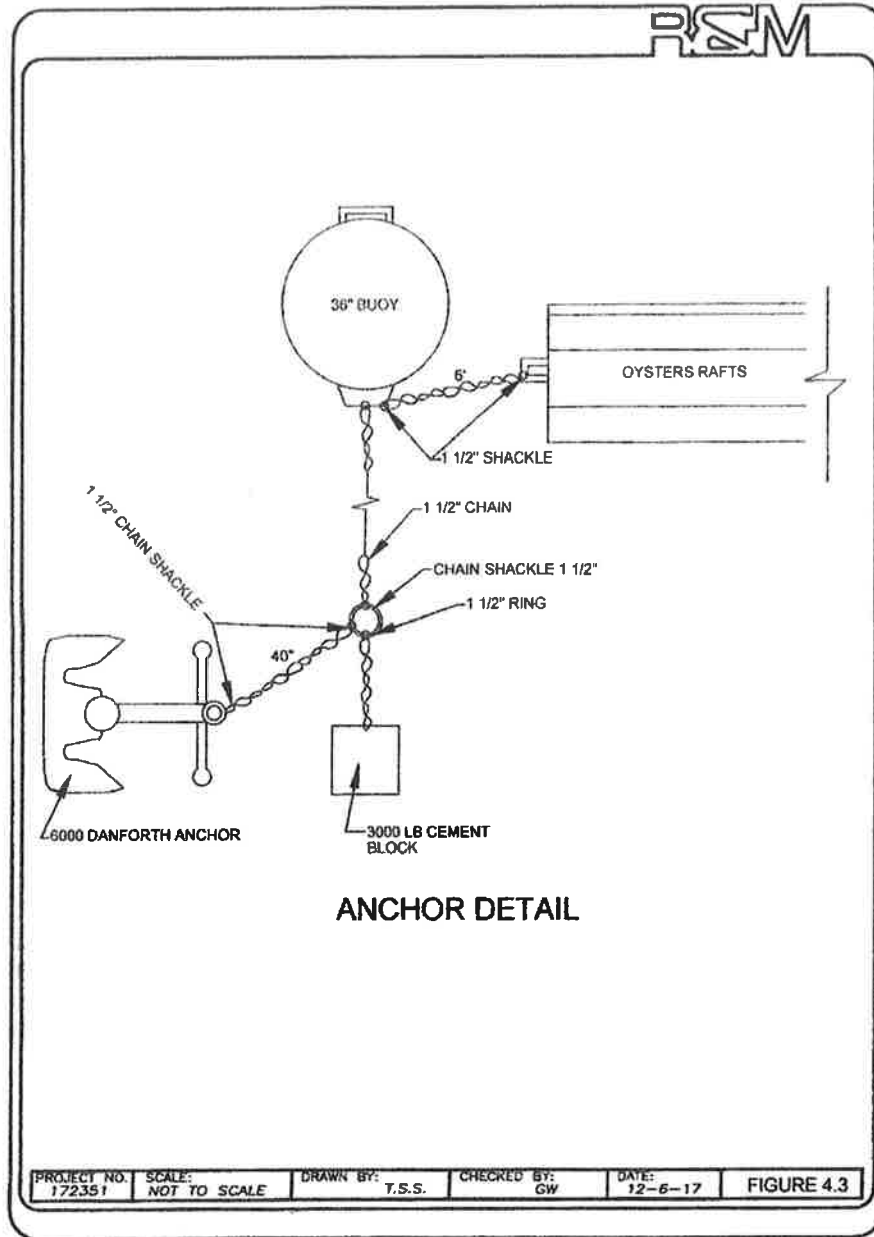
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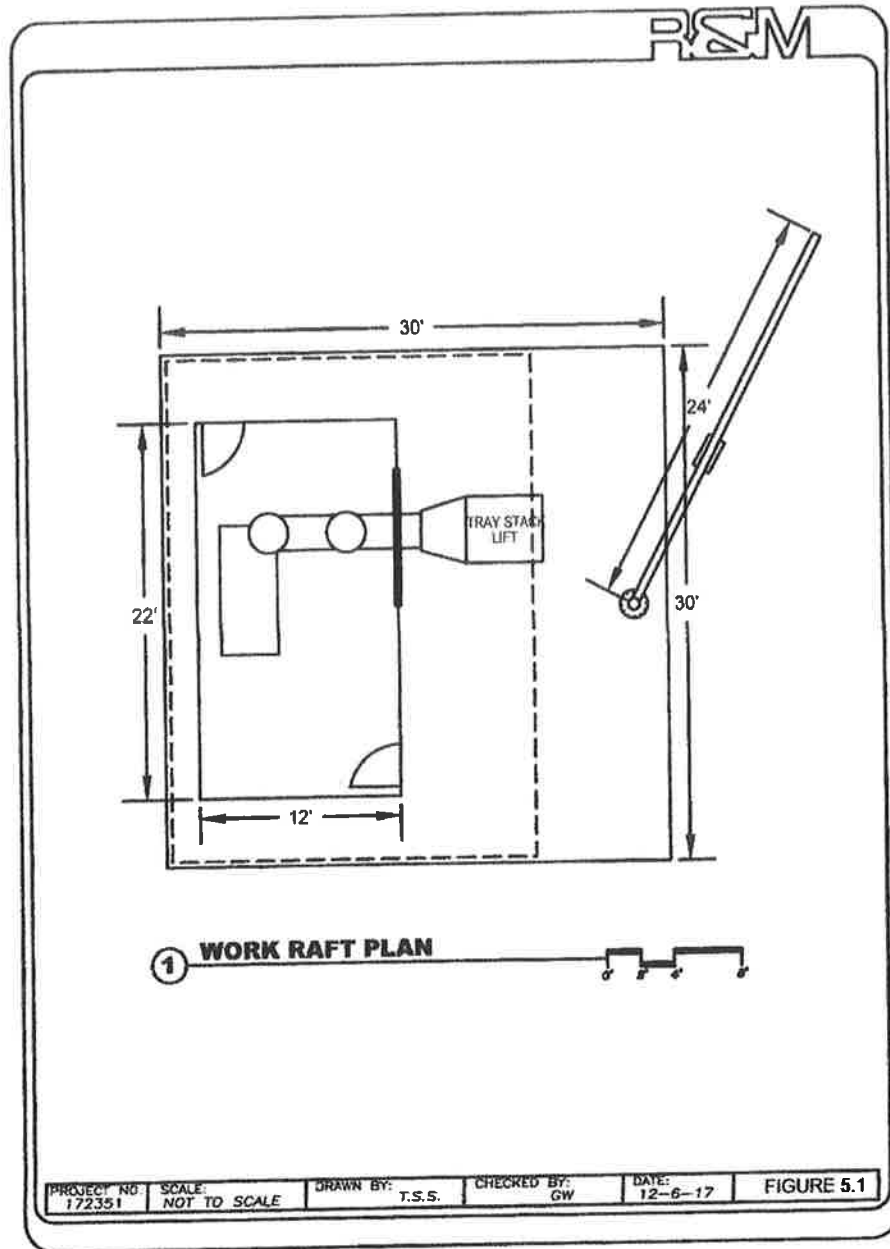
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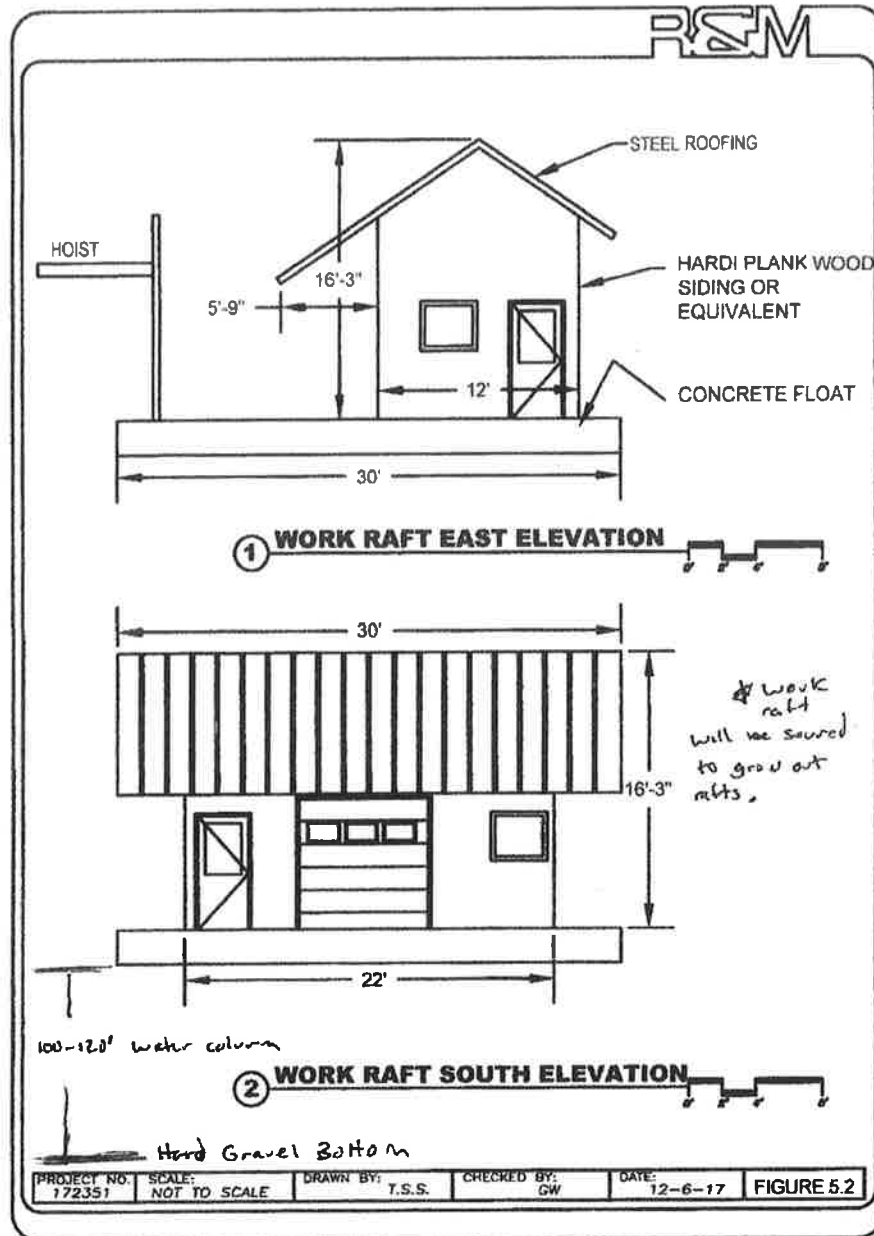
Attachment A Development Plan



Attachment A Development Plan



Attachment A Development Plan



Attachment A Development Plan



***Complete one operation and development plan for each species**

AQUATIC FARM OPERATION AND DEVELOPMENT PLAN - PART A

Part A includes questions regarding your proposed operation. Your proposed aquatic farm or hatchery plans must demonstrate technical and operational feasibility (AS 16.40.105(4)). Please provide any additional information that you consider pertinent to your operating plan on additional sheets of paper as necessary.

Name Coastal Alaska Seafoods LLC Species Pacific Oysters
ADNR Lease ADL No.: ADL 232900 ADF&G Permit No. _____ -AF- _____

1. Provide an estimate of the total days and number of people (including yourself) that will be needed to operate your farm site for each year:

Year 1:	Number of Days <u>192</u>	Number of People <u>1</u>
Year 2:	Number of Days <u>192</u>	Number of People <u>1</u>
Year 3:	Number of Days <u>208</u>	Number of People <u>2-3</u>
Year 4:	Number of Days <u>260</u>	Number of People <u>3</u>
Year 5:	Number of Days <u>260</u>	Number of People <u>3-4</u>

2. Site Monitoring/Maintenance

- 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 20 (days/month) Winter months 6 (days/month)

- b. Where will you store any farm gear and/or equipment when not in use? work raft or personal residence

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

- d. How will you manage incidental species over the course of operations (sea urchins, sea cucumbers, butter clams, or other non-targeted species)? will be returned to ecosystem

- e. For on-bottom culture, if you intend to use predator netting, how long will you keep netting over your product? N/A (months)

3. Recordkeeping

- a. What methods are you going to use to measure the success of your operation (growth, survival or mortality rates, production, etc.)? All of the above

- b. Will you maintain records of aquatic farm product, such as counts and measurements to track survival and growth? Yes ☒ No ☐ Describe: notebook and electronic spread sheets. Weekly readings will take place in summer season, bi-monthly in winter. Will measure mortality of oyster related to seed batch.

Attachment A Development Plan

- c. Do you plan to record other physical or environmental parameters at your site such as water temperatures and salinity? Yes ☒ No ☐ Describe: Water temperature and potentially salinity

4. Harvest

- a. How often do you intend to harvest your product? market dependent, hopefully weekly at least after 2-3 seasons
- b. How do you intend to harvest your product? **Suspended:** Manual davit system Other electric davit
On-Bottom: Hand/Digging _____ Hydraulic wand _____ Manual _____ Other _____

5. Sales

- a. DNR has a commercial use requirement (CUR) of \$3,000 per acre per year or \$15,000 per farm, whichever is less. What is your anticipated total production using farm gate value by the end of year 5?
\$ 100,000

6. Seed Acquisition

- a. Which certified shellfish seed source(s) will you use? Ocean's Alaska and/or other regional sources price dependent
- b. Applicable for indigenous species (mussels, scallops, abalone, etc.), how do you intend to collect wild seed? N/A

PART A - SIGNATURE BLOCK

Signature: _____

Date: 11/5/2018

Attachment A Development Plan

AQUATIC FARM OPERATION AND DEVELOPMENT PLAN - PART B

Complete one operation and development plan for each species using a reasonable expectation of what you believe is possible for each year of the 10-year lease and operation permit. This is a projection to help you visualize a 10-year farming plan keeping in mind that annual sales at the end of year 5 must meet or exceed the commercial use requirement and sales must then be maintained or increased in the remaining years of the lease. Commercial use equals the annual sum of farm sales from all species combined. The commercial use requirement does not have to be met for each species. Your plan can be amended to reflect any changes as the aquatic farm operations develop.

Name Coastal Alaska Seafoods LLC ADL Number 23A 97C ADP&G Permit No. -AF- Species Pacific Oysters

Calendar Year	Installation Schedule		# of Hatchery-Produced Seed	# of Seed Collected Onsite (Only applies to indigenous sp.)	Aquatic Farm Production	
	Support Facilities ¹	Equipment/ Gear Types ² And Numbers ³			Projected Sales ⁴ (\$)	# of Animals # of Pounds
(Year 1) 2018		1 - Grow out raft 30 stacks w/ 10 tier trays each	2 - 4,000 lbs dantforth and 2 - 3,000 lbs cement block within buoy		\$ 0	
(Year 2) 2019	1-work raft	2 - Grow out rafts 80 stacks w/ 10 tier trays			\$ 0	
(Year 3) 2020		3 - grow out rafts 180 stacks w/ 10 tier trays	2 - 6,000 lbs dantforth 4,2 - 3,000 lbs cement blocks within buoy		\$ \$75,000 @ \$5/Dz	15,000 Dozen
(Year 4) 2021		3 - grow out rafts 200 stacks w/ 10 tier trays			\$ \$75,000 @ \$5/Dz	15,000 dz
(Year 5) 2022		3 - grow out rafts 200 stacks w/ 10 tier trays	2 - 6,000 lbs dantforth 4,2 - 3,000 lbs cement blocks within buoy		\$ \$100,000 @ \$5/Dz	40,000 Dz

¹ Support facilities examples: cannister, storage, or processing facilities, work rafts, etc. This must correspond to diagrams and drawings.

² Equipment examples: grow-out rafts, longlines, buoys, etc. Gear examples: trays, tiers of lantern nets, or predator netting. This must correspond to diagrams and drawings.

³ Projected sales are based on Echin Grits, Albion, which is defined as the unprocessed value, excluding the cost of packaging or transport of the product to its first point of sale.

⁴ By the end of your 5th year, projected sales for all species combined must meet the commercial use requirement (CUR) defined as the annual sales of at least \$2,000 per acre or fraction of an acre, or \$15,000 per farm, whichever is less (1 AAC 63.03(b)). The CUR applies to the combined total of all species, is not a "per species" requirement and must be maintained or increased in Years 6 - 10.

I understand I must improve productivity according to above operation and development plan for this species and that this plan can be amended to reflect any changes as the aquatic farm operations develop.

SIGNATURE

[Signature]

DATE

11/1/2019

Attachment A Development Plan

(Continued - Page 2)

AQUATIC FARM OPERATION AND DEVELOPMENT PLAN - PART B

Name **CAS LLC**

ADL Number **232900** ADF&G Permit No. _____

A.F. _____

Species **Pacific Oysters**

(Individual plan required for each species)

Calendar Year	Installation Schedule of New Structures (Corresponds with diagrams and drawings)			# of Hatchery-Produced Seed	# of Seed Collected Onsite (Only applies to indigenous sp.)	Aquatic Farm Production Projected Harvest and Sales		
	Support Facilities ¹	Gear Types And Numbers ²	Anchoring Systems			Projected Sales ³ (\$)	# of Animals	# of Pounds
(Year 6) 20_23		3 - grow out rafts 200 stacks w/ 10 tier trays		1,200.00		\$ 125,000 \$5/dz	25,000 Dz	50,000 lbs
(Year 7) 20_24		3 - grow out rafts 200 stacks w/ 10 tier trays	2 - 6,000 lbs denorth & 2 - 3,000 lbs cement blocks w/chainbuoy	1,200.00		\$ 240,000 @\$6/dz	40,000 Dz	80,000 lbs
(Year 8) 20_25		2 - grow out rafts 200 stacks w/ 10 tier trays		1,200.00		\$ 300,000 @\$6/dz	50,000 dz	100,000 lbs
(Year 9) 20_26		200 stacks w/ 10 tier trays		1,200.00		\$ 360,000 @\$6/dz	60,000 dz	120,000
(Year 10) 20_27		100 stacks w/ 10 tier trays		1,200.00		\$ "	"	"

¹ Support facilities includes caretaker storage of processing facilities, work rafts, etc.

² Equipment includes grow-out rafts, longlines, buoys, etc. (Clear includes: trays, tiers of basket nets, or predator netting. This must correspond to diagrams and drawings)

³ Projected sales are based on Farm Gate Income which is defined as the unprocessed value, excluding the cost of packaging or transport of the product to its first point of sale

I understand I must improve productivity according to above operation and development plan for this species and that this plan can be amended to reflect any changes as the aquatic farm operations develop.

SIGNATURE _____

DATE W/5/13