

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

**PRELIMINARY FINDING AND DECISION  
FOR PROPOSED AQUATIC FARMSITE LEASE AMENDMENT  
LOCATED AT ROCKY PASS**

**APPLICANT: PETER METCALFE DBA ROCKY PASS COMPANY  
ADL 107359**

**PROPOSED ACTION:** The applicant proposes to relocate his existing aquatic farm site of 10.56 acres approximately 123 yards from the current leased site and reduce the size to 2.98 acres for the culture of geoduck clams located in Rocky Pass, Keku Strait, between Kuiu and Kupreanof Islands, northwest of Eagle Island, approximately 25 miles south of the community of Kake, Alaska.

The proposal consists of culturing geoduck clams within an area measuring approximately 288 feet by 450 feet equaling 2.98 acres. The gear for planting will be 4 inch x 12 inch long vexar mesh tubes topped with light plastic mesh socks. The tubes will be inserted 8 inches into the substrate on 1 foot centers using a low pressure water pump and ½ inch nozzle to liquefy the substrate. Two to three juvenile geoducks will be planted in each tube before the socks are installed. Optimal planting of the 2.98 acre site would be on a five-year rotational schedule with the annual installation of 25,500 tubes, and the annual planting of approximately 60, 0000 geoduck seed. The vexar tubes will be removed from each planted section within two years of planting, leaving the planted section free of any gear. It is estimated that the 2.98 site can support a five-year total planting of 300,000 animals with an expected mortality rate of 50%. The area would contain approximately 440 rows with 290 vexar tubes, covered with soft plastic mesh, planted on one-foot centers. The site will be marked with six buoys, two at each end and two at midpoint.

The marketable geoduck clams will be harvested at high tide with commercial geoduck “wands”, which use air pressure to loosen the substrate around them. The harvested clams will be transported to a licensed shellstock shipper in Petersburg, Juneau or Kake for processing and marketing. No on-site holding of harvested clams is contemplated.

Access to the site is by boat. The proposed location is only accessible by boat or floatplane. No hardening area or floating facilities are requested. The total area requested is 2.98 acres and is shown on the location map attached to this decision.

**AUTHORITY:** AS 38.05.035; AS 38.05.070; AS 38.05.083; AS 38.05.127; AS 38.05.128; 11 AAC 51; and 11 AAC 63

This decision addresses and is based on those issues under the authority of the Department of Natural Resources (DNR) under Title 38 of the Alaska Statutes and Title 11 of the Alaska Administrative Code. This decision’s purpose is to decide on whether or not to amend the existing DNR lease and does not make any determinations whatsoever on the issuance of other agency authorizations necessary for aquatic farming activities.

**ADMINISTRATIVE RECORD:** The administrative record for the application submitted is file number ADL 107359.

**LOCATION:**

**USGS MAP COVERAGE:** Petersburg C-6

**NAUTICAL CHART:** 17372

**LEGAL DESCRIPTION:** Section 26, Township 60 South, Range 74 East, Copper River Meridian

**LATITUDE / LONGITUDE:**

NE Corner – 56° 37' 590" N	133° 42' 628" W
SE Corner – 56° 37' 519" N	133° 42' 587" W
SW Corner – 56° 37' 518" N	133° 42' 674" W
NW Corner – 56° 37' 588" N	133° 42' 714" W

**GEOGRAPHIC:** The proposed farmsite is located on state-owned tide and submerged lands in Rocky Pass, Keku Strait, between Kuiu and Kupreanof Islands, northwest of Eagle Island, approximately 25 miles south of the community of Kake, Alaska.

**POLITICAL INFORMATION:**

**BOROUGH / MUNICIPALITY:** This application is outside of an organized city or borough.

**COASTAL DISTRICT:** This application is outside of an approved coastal district under the Alaska Coastal Management Program.

**REGIONAL CORPORATION, NATIVE VILLAGES AND TRIBES:** Sealaska Corporation, Organized Village of Kake, and the Kake Tribal Corporation

**FISH AND GAME ADVISORY COMMITTEES:** Kake and Sumner Strait Fish and Game Advisory Committees

**TITLE:**

**ACQUISITION AUTHORITY:** Submerged Lands Act of 1953. (P.L. 31, 83<sup>rd</sup> Congress, First Session; 67 Stat. 29); Equal Footing Doctrine; Section 1 of the Alaska Statehood Act.

**TITLE REPORT:** Report was requested on August 24, 2005.

**PLANNING AND CLASSIFICATION:**

**LAND MANAGEMENT PLAN:** Central/Southern Southeast Area Plan (CSSEAP), Region 2 – Kuiu/West Kupreanof, adopted in November of 2002. The unit information describes known human and/or fish and wildlife uses and important habitat or resources, and provides guidelines when considering new requests for use within the area.

**SURFACE CLASSIFICATION:** The CSSEAP classifies state owned tidelands in this area as resource management under Classification Order No. SE-00-001. These classifications allow aquatic farming activities.

**MINERAL ORDER(S):** The proposed site is open to mineral entry.

**ACCESS:** Access to the proposed site is by boat or floatplane. A fifty-foot wide easement will be reserved to protect public access in accordance with 11 AAC 63.050(b)(6) and 11 AAC 51. Should an additional easement(s) be required for this proposal, it will be identified and addressed under the final recommendation section of this document.

#### **SURVEY AND APPRAISAL:**

**SURVEY:** A survey is not required by law before issuing a 10-year negotiated lease. However, the department has the right to require one, at the applicant's expense, if boundary conflicts or disputes arise over acreage.

**APPRAISAL:** The Division of Mining, Land and Water has approved an administrative lease fee schedule for aquatic farmsites that meet the conditions listed within the schedule. The current lease fee schedule will be used to establish the fair market rental for the farmsite. The current lease fee schedule, Appraisal No. 2522-9, sets the annual lease fee for tide and submerged lands at \$450 for the first acre, or portion thereof, plus \$125 for each additional acre, or portion thereof. For associated housing facilities on tide and submerged lands, the annual lease fee is 825 for the first acre or portion thereof, plus \$125 for each additional acre or portion thereof; and for associated housing or storage on an upland site, the annual lease fee is \$2,000 for the first acre or portion thereof, plus \$125 for each additional acre or portion thereof.

The applicant has the option to request a site-specific appraisal, at their expense, before the lease is issued, if he or she does not wish to use the fee schedule. If an applicant opts for a site-specific appraisal, the appraisal, approved by the division, will establish the rental for the lease and the fee schedule will no longer be an option. The appraisal must be completed prior to lease issuance.

**PUBLIC / AGENCY NOTICE AND COMMENTS:** Public notice of the proposal has been sent to various newspapers, post offices, agencies, boroughs/cities, native corporations/villages/tribes, the general mailing list maintained by DNR, Fish and Game Advisory committees, and valid third party interests, including nearby existing aquatic farm lessees. Public and agency comments regarding the proposal are encouraged during the comment period – **August 17, 2011 until 5:00 p.m. on Thursday, September 15, 2011.** The final best interest finding will consider and address all comments related to the proposal that were submitted timely, either in writing or by oral testimony at a hearing. The final best interest finding will be available on or about October 10, 2011. Only those who provide written/oral comments during the comment period will be sent a copy of the final best interest finding and will be eligible to appeal. The final best interest finding will include an explanation of the appeal process.

#### **Evaluation by the Alaska Department of Fish and Game**

***I. Physical and Biological Characteristics:*** Based on the information provided by the applicant on the site physical and biological characteristics, the proposed sites appear capable of supporting the farm activities proposed. Details listed for the proposed areas are summarized below.

***Protection from Oceanographic and Atmospheric Extremes:*** The physical exposure notes from Alaska ShoreZone imagery mapped data<sup>1</sup> shows the area as “protected” defined

<sup>1</sup> NOAA (National Oceanic and Atmospheric Administration), Fisheries, National Marine Fisheries Service. Alaska ShoreZone: Coastal Mapping and

as a maximum effective fetch of < or = to 10 km. The intertidal farm culture gear to be used at the new site parcel has a sound configuration and anchoring system and is comparable to existing intertidal on-bottom farm gear used in Southeastern Alaska that can withstand ocean and atmospheric conditions.

**Sufficient Environmental Conditions:** The proposed aquatic farm operation project is in an area that appears to have sufficient water exchange, water temperatures, currents, salinity, and primary production to support an aquatic farm and maintain healthy environment for other marine organisms.

**Sufficient Water Depth:** Not applicable as site is in an intertidal area and applicant proposes to use on-bottom culture.

**Eelgrass and Kelp Beds Maintained:** Eelgrass and kelp habitats are among some of the most productive and biologically diverse. Among other things, eelgrass and kelp beds helps prevent erosion and maintain stability of near-shore environments and provide food, breeding areas, and protective nurseries for fish, shellfish, crustaceans, and many other animals. Operations must be done in a manner to minimize turbidity in the area and to prevent any trampling or shading that may impact the health and abundance of eelgrass or kelp beds. Alaska ShoreZone imagery data<sup>2</sup> was not available for this area. Based on the information provided by the applicant, there does not appear to be any eelgrass in the proposed project area. The exact locations and extent of eelgrass beds is not well documented in the area. If health and the abundance of eelgrass beds in the area are not properly maintained, project modifications to the aquatic farm operations permit will be made to correct the condition.

**Anadromous Fish Streams:** Anadromous streams catalogued for various salmon species are located near the proposed project parcels<sup>3</sup>. However, the proposed aquatic farm site parcels are not located within 300 feet of the mouth of an anadromous fish stream. The closest anadromous stream is 1,100 ft from both site parcels being proposed. It is unlikely that the current design of the proposed project structures and gear will significantly affect fish rearing habitats for salmonids and other marine fishes and will allow adequate fish passage for salmonid adults that may be in the milling or migrating through the area. Floating structures in the bay could impede salmon migration enough to draw sportfish angler use to the area during August and September for coho salmon and increase angler efficiency and thereby causing concern for nearby salmon stream coho stocks. This could be remedied later by a local seasonal angling closure if it was an issue.

**II. Existing Uses not Significantly Altered:** The proposed aquatic farm site will not significantly alter an established use defined in regulations as a commercial fishery, sport fishery, personal use fishery, or subsistence fishery.

**Commercial Fisheries:** This project area is in Commercial Fisheries Division statistical area sub-district 105-32. The proposed aquatic farm site project is not expected to cause any significant alterations to the existing commercial fishery uses in the area as long as conditions are attached to their operations permit. Details on each commercial fishery and conditions are listed below.

Imagery. <http://akr-mapping.fakr.noaa.gov/szflex/> (Accessed July 2011).

<sup>2</sup> NOAA (National Oceanic and Atmospheric Administration), Fisheries, National Marine Fisheries Service. Alaska ShoreZone: Coastal Mapping and Imagery. <http://akr-mapping.fakr.noaa.gov/szflex/> (Accessed July 2011).

<sup>3</sup>Johnson, J. and K. Klein. 2009. Catalog of waters important for spawning, rearing, or migration of anadromous fishes – Southcentral Region, Effective June 1, 2009. Alaska Department of Fish and Game, Special Publication No. 09-03, Anchorage.

**Geoducks:** No commercial geoduck dive fishery takes place at the site. Geoduck clam wild stock are not known to grow naturally in intertidal areas in Alaska.

**Sea cucumber:** There is no conflict as the area with commercial sea cucumber dive fishery is now closed to the harvest of commercial sea cucumbers.

**Red Sea Urchins:** No commercial red sea urchin dive fishery takes place in either of these sites.

**Salmon:** No commercial salmon gillnetting fishery, salmon trolling, purse seining occur in this area.

**Herring:** No herring are known to spawn in this area.

**Dungeness crab:** In aerial surveys of the Dungeness fishery over the past six years, the southern extent of the gear in Rocky Pass is found in the vicinity of High Island. It is likely that close to none of the harvest in 105-32 over the past ten years has come from the vicinity of Eagle Island. It is likely that this proposed farm site amendment will have a negligible impact on commercial Dungeness fisheries around Eagle Island.

**Sport Recreational Fishery:** The area is not a significant site for Sport Anglers. It is likely that the project area is also used by personal use and subsistence Dungeness fishermen. The Statewide Harvest Survey does tally Dungeness personal use harvest in Southeast but summarizes these data on a wider scale than district or statistical area. Due to their design, oyster farms have not seemed to have significant negative impact on anglers. The proposed aquatic farm site is not expected to cause any significant alterations to the existing sport recreational fishery use.

**Subsistence Use:** There is a customary and traditional use finding for District 5 north of Cape Pole, so subsistence fishing for Dungeness is allowed in Big John Bay. Since no permit system is in place for the personal use or subsistence fisheries, the amount of effort and harvest in the area would be difficult to gauge. The proposed aquatic farm site is not expected to cause any significant alterations to the existing subsistence use.

**Anchorage:** This area is not known to have any critical vessel anchorages.

**III. Compatible with Fish and Wildlife Resources:** The proposed aquatic farm site is compatible with fish and wildlife resources in the area.

**Predator and Pest Control Methods:** Predator exclusion devices to be used at the proposed site are expected to be utilized in a manner that minimizes impacts on non-targeted fish and wildlife resources in the area.

**Sensitive Wildlife:** The proposed aquatic farm site is not expected to adversely impact seabird colonies, sea lion haulouts and rookeries, seal haulouts and pupping areas, and walrus haulouts.

**Sea Bird Colonies:** There are no sea bird colonies identified within 1 mile of the proposed sites.<sup>4</sup>

<sup>4</sup> U.S. Fish and Wildlife Service, (current year). Beringian Seabird Colony Catalog -- computer database. U.S. Fish and Wildlife Service, Migratory Bird

**Eagle Nest:** There are no eagle nests within 330 ft of the proposed project site parcels<sup>5</sup>

**Sea Mammal Habitat:** There are no sea mammal haul outs within 1 mile of the proposed sites<sup>6</sup>.

**Endangered species:** The proposed aquatic farm site will not adversely impact endangered and threatened species recovery and habitat efforts.

#### **IV. Operation and Development Plan:**

**Increase Productivity/Maintenance/Rotation Schedule:** No changes were made on the operation and development plan for this project.

#### **V. Species to be Cultured and Site Suitability**

Pacific geoducks (*Panopea abrupta*) are reported to occur from Newport Bay California, north to Kodiak Island<sup>7</sup>, but other sources indicate the northern extreme of the range is Sitka, Alaska<sup>8</sup>. Known geoduck beds in Southeast Alaska are patchily distributed in central and southern Southeast Alaska, Primarily in protected waters near the outside coasts (ADF&G unpublished data).

The patchy distribution results from the habitat requirements of the geoduck, which ranges from the lower intertidal to subtidal areas, to depths of over 110 meters<sup>9</sup>. Geoducks occur in soft mud, sand, or pea gravel substrates, in which adult clams burrow to depths for 1 meter<sup>10,11</sup>. The applicant description for the proposed intertidal site, Parcel 1 indicated that the substrate is less soft and muddy than the present site that is permitted. ShoreZone substrate data<sup>12</sup> noted that the beach near Parcel 2 is described as an exposed tidal flat.

Predation rates decrease with age for geoducks with the highest mortality occurring at the planktonic and early life stages. As the clam digs deeper into the substrate the survival increases. Once established in the substrate, juvenile geoducks are subject to predation by epigenetic fish, Lewis moon snail (*Euspira lewisii*), worms, sea stars, and crabs. Sea stars such as *Pisaster brevispinus* and *Pycnospodia helianthoides* can prey on geoducks down to a depths of 24 inches (60 cm), but once adult clams reach normal depths, they are susceptible to only sea otters (*Enhydra lutris*) and humans. Siphon grazing by spiny dogfish (*Squalus acanthia*), cabezon (*Scorpaenichthys marmoratus*) and Halibut (*Hippoglossus stenolepis*) also has been documented (Goodwin and Pease, 1989). Predator netting is highly

Management, Anchorage, Alaska 99503.

<sup>5</sup> U.S. Fish and Wildlife Service, Migratory Bird Management. Alaska Bald Eagle Nest Atlas-computer database. 2008.

<sup>6</sup> Analysis completed by NOAA Fisheries Service, Alaska Region, Protected Resources Division. Specifically, the data used to complete this analysis were provided by researchers from NOAA Fisheries Service, Alaska Fisheries Science Center, and National Marine Mammal Laboratory.

<sup>7</sup> O'Clair, R. M. and C.E. O'Clair. 1998. Southeast Alaska's Rocky Shores: Animals. Plant Press, Auke Bay, AK. 564 pp.

<sup>8</sup> Foster. 1991. Intertidal Bivalves. A Guide to Common Bivalves of Alaska. University of Alaska Press. 152 pp.

<sup>9</sup> Goodwin, C.L. and B. Pease. 1989. Species profiles: Life Histories and environmental requirements of coastal fishes and invertebrates ( Pacific Northwest) – Pacific geoduck clam. U.S. Fish and Wildlife Service Biol. Report 82(11.120). Us Army Corps of Engineers, TR EL-82-4. 14 pp.

<sup>10</sup> Goodwin, C.L. and B. Pease. 1989. Species profiles: Life Histories and environmental requirements of coastal fishes and invertebrates ( Pacific Northwest) – Pacific geoduck clam. U.S. Fish and Wildlife Service Biol. Report 82(11.120). Us Army Corps of Engineers, TR EL-82-4. 14 pp.

<sup>11</sup> Gordon, D.G. 1996. Field Guide to the Geoduck. Sasquatch Books, Seattle. 48 pp.

<sup>12</sup> NOAA (National Oceanic and Atmospheric Administration), Fisheries, National Marine Fisheries Service. Alaska ShoreZone: Coastal Mapping and Imagery. <http://akr-mapping.fakr.noaa.gov/szflex/> (Accessed July 2011).

recommended for geoduck aquatic farm sites. The applicant plans to utilize predator exclusion nets for a duration of two years at the site.

Other species that occur in the substrate with geoducks include tube dwelling polychaete worms, whose tubes serve as attachment points for juvenile geoducks, and horse clam (*Tresus capax*), another clam typically burrows in the substrate to about 18 inches (45 cm).<sup>13,14</sup> Although they may occur in commercial quantities in some areas, horse clams are not generally harvested commercially,<sup>15</sup> but they are generally harvested for sport.<sup>16</sup> Other taxa commonly observed on the substrate of geoduck beds include sea urchins (*Strongylocentrotus* spp.), sea cucumbers (*Parastichopus* spp.), and Dungeness crab (*Cancer magister*).

Based on the information in the application and in ShoreZone data, the proposed site is capable of supporting the activities proposed. The proposed parcels in this aquatic farm operation project are located in an area that is thought to have suitable biological and physical characteristics to culture geoduck clams.

**ENVIRONMENTAL RISK ASSESSMENT:** The applicant has submitted a signed environmental risk questionnaire. The questionnaire asks for information on potentially hazardous materials, such as plans for onsite storage of fuel or chemicals. The applicant has indicated that no on-site use, storage, transport, disposal, or otherwise, of any petroleum products will be used during the course of the proposed activities.

#### **BONDING AND INSURANCE:**

**BONDING:** Bonding, or another form of security, is required under AS 38.05.083 and 11 AAC 63.080. The bond must cover the costs of site cleanup and restoration, any associated cleanup costs after termination of the lease, including any unpaid rentals or other obligations accruing until site restoration is complete. The regulations require the minimum security amount of \$2,500 for an aquatic farm lease. Factors such as location and amount of improvements at the site are taken into consideration when the bond amount is determined. Please refer to the Recommendation section at the end of this decision for the bond amount that was determined appropriate for this proposal.

If three or more lessees post an association bond to cover all of their leases, the minimum security amount is 50 percent of the amount individually calculated for each lease. The association must designate an agent for notification purposes. The association has the right to be notified of the termination of a lease covered by its association bond. If neither the former lessee nor the association completes the site restoration as required by AS 38.05.090, the department will use the association bond for this purpose, up to 100 percent of the amount individually calculated for that lease. The association may remove a lease in good standing from the coverage of its association bond after 60 days' notice to the department, during which time the affected lessee must make other arrangements to comply with 11 AAC 64.080(b). A lease that is in default or that has been terminated with site restoration still

<sup>13</sup> Goodwin, C.L. and B. Pease. 1989. Species profiles: Life Histories and environmental requirements of coastal fishes and invertebrates ( Pacific Northwest) – Pacific geoduck clam. U.S. Fish and Wildlife Service Biol. Report 82(11.120). Us Army Corps of Engineers, TR EL-82-4. 14 pp.

<sup>14</sup> Gordon, D.G. 1996. Field Guide to the Geoduck. Sasquatch Books, Seattle. 48 pp.

<sup>15</sup> Quayle, D. B. and N. Bourne. 1972. The clam fisheries of British Columbia. Fisheries Research Board of Canada. Ottawa.

<sup>16</sup> Feder, H. M. and A. J. Paul. 1974. Alaska Clams: A Resource for the Future. Alaska Seas and Coasts, Vol. 2:1. February 15, 1974. Sea Grant/Marine Advisory Program. University of Alaska Fairbanks, Fairbanks, AK.

pending may not be removed from the coverage of an association bond.

**INSURANCE:** At this time the DNR does not require this type of activity to have general liability insurance. General liability insurance may be required in the future depending on the aquatic farming operations and the procedures of the department at the time changes are made to the lease or a renewal lease is issued. The lessee is responsible for acquiring other types of insurance, such as Workman's Compensation Insurance, that may be required under other local/state/federal laws.

**POTENTIAL CONFLICTS AND PENDING / EXISTING THIRD PARTY INTERESTS:** The Department of Environmental Conservation, Division of Environmental Health, advises that there is no Paralytic Shellfish Poisoning (PSP) historical data for this area.

Information from the U.S. Coast Pilot 8 indicates that a federal project within Rocky Pass provides for a channel dredged to a depth of 5 feet through Devils Elbow and the Summit, the shallowest parts of the pass. The pass is used by fishing vessels, cannery tenders, and tugs with log rafts. The draft which can be carried through depends on the tide. It is reported that 12 feet can be carried through 40 percent of the time, with a resultant saving of from 30 to 80 miles. Because of strong currents, narrow channel, and sharp turns, it is advisable to make passage at or near high-water slack. The depths through Rocky Pass are generally shallow, and small craft can anchor practically anywhere with the aid of the chart. Larger craft can enter the south end of the pass for a distance of 2 miles until opposite Tunehean Creek and select anchorage according to draft, either to north or south of the midchannel reef off the mouth of the creek.

Devils Elbow is the most dangerous part of the pass (located near the proposed location). The channel here makes a full right-angle turn. It had a controlling depth of 5 feet in 1977. The Summit is the narrow passage, west and northwest of Summit Island, through which a channel has been dredged. Passage through The Summit should be attempted only with local knowledge.

There are no known pending and/or third party interests at the location of the proposal.

**CENTRAL / SOUTHERN SOUTHEAST AREA PLAN INFORMATION SPECIFIC TO THIS PROPOSAL:** The proposal is located within Region 2 – Kuiu/West Kupreanof, Rocky Pass Special Management Area for Marine Waters and Tidelands. The tidelands are designated general use, with a corresponding classification of resource management. Land classified resource management is either (1) land that might have a number of important resources but for which a specific resource allocation decision is not possible because of a lack of adequate resource, economic, or other relevant information, or is not necessary because the land is presently inaccessible and remote and development is not likely to occur within the next 10 years; or (2) land that contains one or more resource values, none of which is of sufficiently high value to merit designation as a primary use. The plan indicates that the tidelands within entire region are extensively used by residents of Kake for gathering black seaweed, gumboats (black mollusk), herring, clams, sea cucumber, sea urchins and seals.

The Rocky Pass Special Management Area and the areas north and south of the Pass are a waterfowl/shorebird fall, winter and spring concentration area; black bears concentrate along the shoreline/upper intertidal area throughout the Pass. The main channel in the north half of the Pass is a starry flounder rearing concentration area. Juvenile pink, chum and coho salmon rear and adult salmon school throughout the unit. The unit is a waterfowl and salmon community harvest area. The unit's management intent is to protect Pacific herring spawning habitat and commercial fishing harvest values.

The area plan provides management policies and/or guidelines for major resources and several specific land management issues, including 1) fish and wildlife habitat and harvest, 2) aquatic farming, and 3) shorelines, stream corridors and coastal areas. The plan states that it may be more difficult to site aquatic farms on tidelands where there is, or proposed to be, waterfront development, high public use for tourism and recreation, anchorage, important habitat, or nearby residential development. However, the plan also states that these areas will be available for aquatic farming activities if the department determines in the best interest finding that (a) it is practicable to operate a farming operation so that it is compatible with the other uses of the immediate area and b) the proposed activity is consistent with all the other guidelines and management intents in the plan.

As stated above, the Rocky Pass Special Management Area contains a wide variety of wildlife resources. The application guidelines describe "sensitive areas" and include herring spawn, and waterfowl/shorebird and bear concentration areas. The guidelines encourage the applicant to contact the resource agency identified to address any perceived or real impacts to these sensitive areas. (The applicant may not have been aware that these areas existed within the area of his proposal at the time he submitted his application.) Additionally, the fact that bear concentrations are known in this area may preclude the site from meeting DEC's water quality requirements.

The applicant is directed to contact DFG regarding this matter and determine what, if any, potential impacts there may be to these sensitive areas from his proposal. Should any potential impacts be identified, the applicant is encouraged to consider modifying his proposed operations to alleviate or eliminate the perceived or real impacts. The applicant is directed to contact DNR immediately after consultation with DFG so this matter may be addressed in the final best interest finding.

It is not known at this time whether cultural/historic sites exist within this unit. DNR will consult with the Division of Parks and Outdoor Recreation, Office of History and Archaeology, with any recommendations included in the final best interest finding.

**Upland Owner / Management Intent:** The uplands adjacent to the proposal are owned and managed by the U.S. Forest Service as they lie within the Tongass National Forest. The Tongass National Forest Land and Resources Management Plan (TLRMP) designates the area as "RM" – Remote Recreation. The management goals for this designation include providing extensive, unmodified natural settings for primitive types of recreation and tourism and opportunities for independence, closeness to nature, and self-reliance in environments offering a high degree of challenge and risk; to minimize the effects of human uses, including subsistence use, so that there is no permanent or long-lasting evidence. The plans management objectives for this designation include to manage recreation and tourism use and activities to meet the levels of social encounters, on-site developments, methods of access, and visitor impacts indicated for the Primitive Recreation Opportunity Spectrum class; to provide trails and primitive facilities that are in harmony with the natural environment and that promote primitive recreation experiences; and to apply the Retention Visual Quality Objective.

The proposed aquatic farming activities at this location are completely submerged with no onsite facilities proposed or necessary. DNR believes that subtidal aquatic farming activities are consistent with the management objectives for this area due to the fact there minimal presence at the site during planting, monitoring and harvesting activities. However, DNR will consult with the Forest Service and any comments they may provide will be addressed in the final decision.

**TRADITIONAL USE FINDING:** Information available at this time suggests that the proposed aquatic farm would not disrupt traditional and/or existing uses of the area, such as commercial and sport fishing, subsistence activities, boat travel, and recreation. Through agency and public input, more traditional and existing use information may surface. If such information becomes available, any potential and/or

existing conflicts will be addressed in the final best interest finding.

**CONSIDERATIONS:** The following criteria set out in 11 AAC 63.050(b), has been considered and represents what is known at this time:

**Land Management:** There are no known land management policies or designations, other than those in the Alaska Coastal Management Program, the Tongass National Forest Land and Resources Management Plan, and the Central/Southern Southeast Area Plan, which may impact this proposal. Any measures taken to mitigate impacts on the resources identified in the above-mentioned plans are listed below.

**Pending / Existing Uses:**

1. There are no known pending use conflicts or potential impacts to nearby communities or residential land due to the placement of this farm at the proposed location.
2. Information available at this time suggests that the proposal at this location would not disrupt the traditional and existing uses of the site for use as an anchorage, commercial and sport fishing, recreation, and tourism.

Issuing a lease for a geoduck clam farm would compete with limited entry dive fisheries seeking that species. The DFG has determined that if a site has a significant population of wild geoduck, enough to attract and support a limited entry commercial fishery, the requested site would be rejected. The applicant is required by DFG to pay for, and complete, a survey of the site prior to their decision regarding issuance of the operation permit. Should the proposal be approved for a lease under DNR's authorities (AS 38), but rejected under DFG's authorities (AS 16), a lease would not be issued.

3. There are no known cultural/historic areas in the area of the proposal. As stated above, the Division of Parks and Outdoor Recreation, Office of History and Archaeology, will be consulted, with any recommendations included in the final best interest finding.
4. There are no commercial or industrial facilities known to exist in the area.

**Public Access:** Public access will be protected in accordance with 11 AAC 63.050(b)(6) and 11 AAC 51 and will be addressed in any resultant lease agreement.

**Public Trust Doctrine:** The Public Trust Doctrine provides that public trust lands, waters and living resources in a state are held by the state in trust for the benefit of all the people, and establishes the right of the public to fully utilize the public trust lands, waters, and resources for a wide variety of public uses. Each state has the authority and responsibility for managing these public trust assets to assure the public rights are upheld.

The Public Trust Doctrine applies whenever navigable waters or the lands beneath those waters are altered, developed, conveyed, or otherwise managed. It also applies whether the trust lands are publicly or privately owned. Public trust lands are generally those lands below navigable waters, with the upper boundary being the ordinary high water mark. Tidelands, shorelands of navigable lakes and rivers, as well as the land beneath oceans, lakes and rivers are usually considered public trust lands.

All lease agreements are subject to the principles of the Public Trust Doctrine in order to protect the public's right to use navigable waters and the land beneath them for navigation, commerce, fishing, and other purposes.

**Mitigation Measures:** If additional conflicts or potential impacts are identified during the public/agency comment period that can be mitigated by special stipulation(s), these special stipulation(s) will be included in the final best interest finding and any resultant lease agreement.

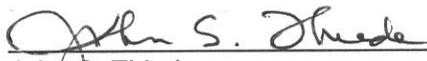
**Social, Economic, and Environmental Concerns:** There are no known significant social, economic, and environmental impacts from the placement of this proposal.

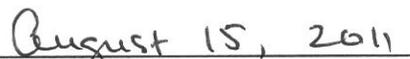
**Surface Area:** The proposal does not encumber more than a third of the surface area of a bay, bight, or cove in accordance with 11 AAC 63.050(c).

**ADVANTAGES / DISADVANTAGES:** Aquatic farming may provide opportunities to increase income and diversify the state's economy by utilizing state tide and submerged lands for this purpose. The advantage of allowing this activity on state owned tide and submerged lands is the potential employment opportunities that may be available in the future when the farm starts to produce. In addition, secondary jobs may be created or increased from businesses involved in marketing and transport of the product.

The disadvantage of allowing this activity on state owned tide and submerged lands is the "privatization" or appearance of exclusive use of the area. The public may not be aware that uses protected under the Public Trust Doctrine remain intact.

**RECOMMENDATION:** Considering the information presently available, it is determined to be in the state's best interest to allow the relocation of an existing farm site and to reduce the size of the farm site and lease 2.98 acre. Any resultant lease agreement will include any stipulations identified above, any which may be required as a result of public comments. Approval of the application is recommended with a security bond set at **\$2,500**.

  
\_\_\_\_\_  
John S. Thiede  
Aquatic Farm Program Manager

  
\_\_\_\_\_  
Date



# CLAM GARDENS OF ALASKA, LLC

352 Distin Ave. • Juneau, AK 99801—metcom@gci.net—P.O. Box 021145, Juneau AK 99802

AMENDMENT DESCRIPTION: Submitted April 28, 2011

ADNR Lease No. 107359 AFOP DFG -07-05-AF-SE

Re: Boundary adjustment and reduction in size of Rocky Pass site

We attach the amendment form for the purpose of moving our site presently located on a 10.56 acre plot with a NE corner of  $56^{\circ} 37.879$  N /  $133^{\circ} 42.752$  W to a 2.98 acreplot with a NE Corner of  $56^{\circ} 37.590$  N /  $133^{\circ} 42.628$  W.

The distance between the closest corners of the two sites, from the SE corner of the present site to the NE corner of the proposed site, is 124.3 yards. Being so close to the original site, the two share similar biotic characteristics: drift kelp, scattered laminaria, sparse cockles and horse clams.

We are petitioning to relocate our site because we are seeking firmer substrate. The substrate of the present site is too soft, presenting a hazard to workers who risk becoming mired and stranded upon an incoming tide.

We are seeking a reduction in size as we have come to realize that we only need a three-acre site to test the viability of our project.

We have also changed our planting procedures and now intend to use vexar mesh (12" long x 4" diameter) tubes capped with soft plastic mesh (see accompanying photos) instead of PVC tubes covered with predator exclusion nets. Within one to two years of planting a section, the vexar mesh tubes will be removed, at which point the planted section will be free of all gear. The only permanent gear at the site will be unobtrusive corner markers.

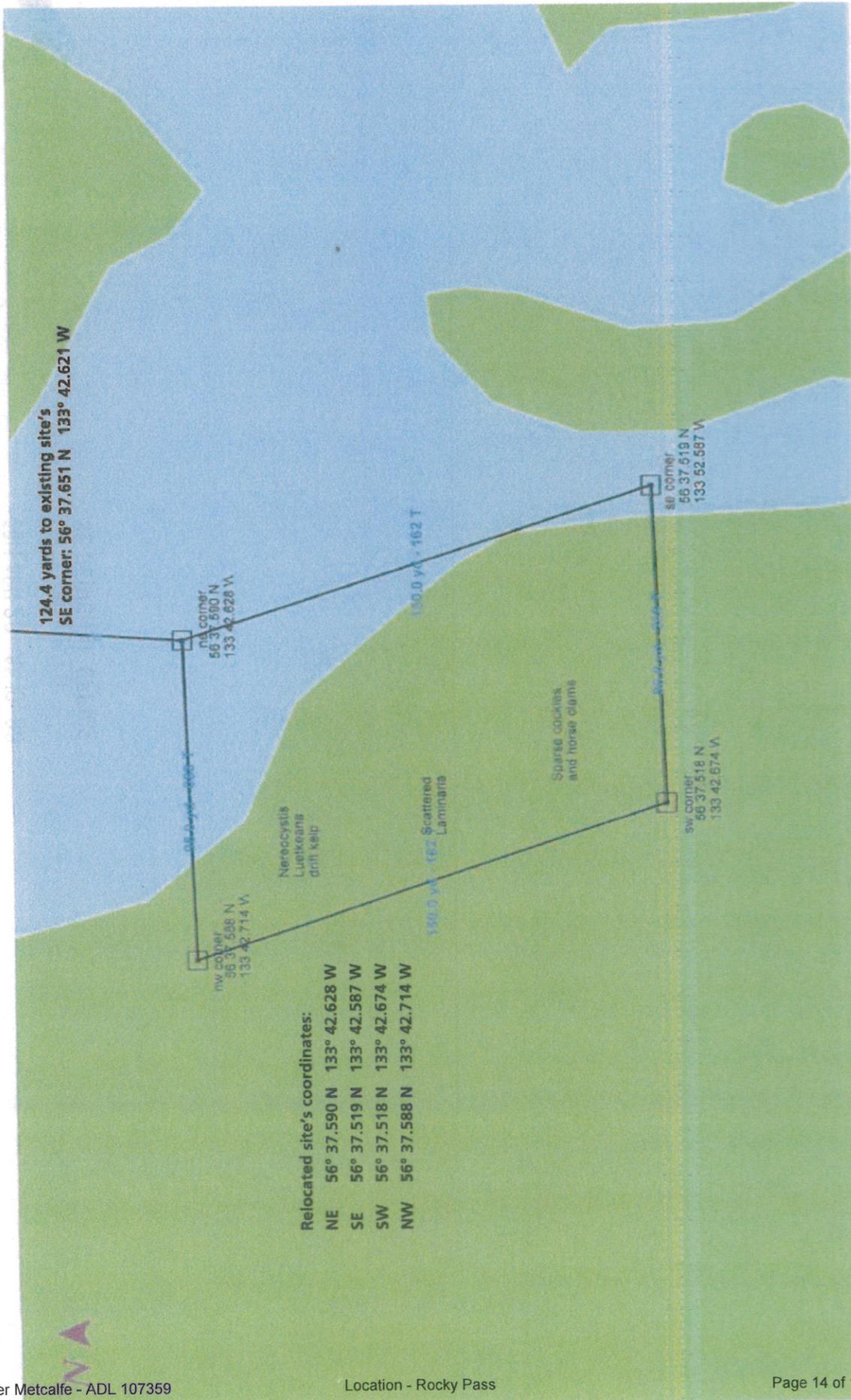
Please feel free to contact me at any time.

Peter Metcalfe, President



# Clam Gardens of Alaska, LLC

352 Distin Ave. • Juneau, AK 99801 • 907-586-1166



# Clam Gardens of Alaska

## Geoduck planting plan for Rocky Pass site...

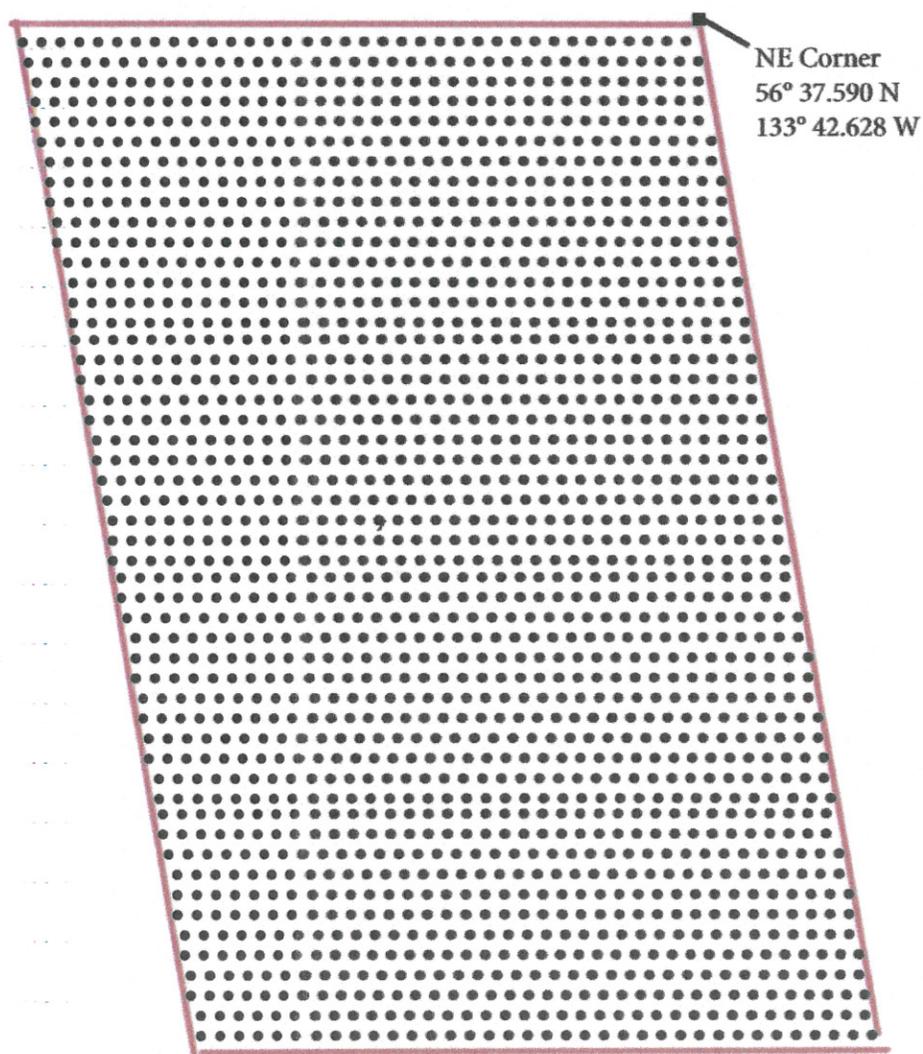


Following the installation of vexar tubes, planters deposit two to three geoduck seed in each tube (see inset at right), then top with light plastic socks.

The gear for planting will be 4" diameter x 12" long vexar mesh tubes topped with light plastic mesh socks. The tubes will be inserted 8" into the substrate on 1 ft. centers (see attached site map) using a low pressure water pump and 1/2 " nozzle to liquefy the substrate. Two to three juvenile geoducks will be planted in each tube before the socks are installed. Optimal planting of the 2.98 acre site would be on a five-year rotational schedule with the annual installation of 25,500 tubes, and the annual planting of approximately 60,000 geoduck seed. The vexar tubes will be removed from each planted section within two years of planting, leaving the planted section free of any gear. It is estimated that the 2.98 acre site can support a five-year total planting of 300,000 animals with an expected mortality rate of 50%.

# Clam Gardens of Alaska

Rocky Pass site plan: approximately 440 rows of 290 tubes each = 127,600 tubes



## Profile of vexar tubes planted on one-foot centers:

