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

PRELIMINARY BEST INTEREST FINDING
AQUATIC FARMSITE LEASE

APPLICANT: Derek Duncan
ADL #108087
Business Name: Goldbelt, Incorporated

LOCATION: HOBART BAY

The Department of Natural Resources is accepting public comment on the following preliminary decision document for an aquatic farm site lease proposal. **Written comments must be received on or before 5:00 p.m. Thursday, September 15, 2011.**

PROPOSED ACTION: The applicant is requesting the approval of a 9.14 acre aquatic farm lease located approximately 70 nautical miles from Juneau and/or 38 miles from Kake, specifically in Hobart Bay for the culture of geoduck clams. The gear for planting geoduck seed will be 4 inch x 12 inch vexar tubes with plastic mesh tops. Two or three juvenile geoducks will be planted in each tube before the mesh tops are attached. The tubes will be inserted 8 inches into the substrate on 1 ft. centers using a low pressure water pump and ½ inch nozzle to liquefy the substrate. Within two years of planting, the vexar tubes will be removed, leaving the planted section free of any gear.

The farm site locations are only accessible by boat or floatplane. A location map is attached to this decision.

AUTHORITY: AS 38.05.035; AS 38.05.070; AS 38.05.075; AS 38.05.083; AS 38.05.127; AS 38.05.128; 11 AAC 63.020

This decision addresses and is based on those issues under the authority of the Department of Natural Resources (DNR) under Title 38. While other issues may be addressed that are not within the scope of DNR's responsibilities, this decision's purpose is to determine whether or not to issue a DNR lease and does not make any determinations whatsoever on the issuance of other agency authorizations that are necessary for aquatic farming activities. Information included in the original preliminary decision document may not be included in this document if conditions have not been altered. Original preliminary decisions for this lease can be obtained by contacting the aquatic farm program manager for the DNR in Anchorage.

ADMINISTRATIVE RECORD: The administrative record for this renewal application is ADL 108087.

LOCATION:

USGS MAP COVERAGE: Sumdum (B-5)

NAUTICAL CHART: 17363

LEGAL DESCRIPTION:

Township 51 South, Range 75 East, Copper River Meridian,

and more specifically described as:

Section 15: S½, north of Entrance Island, encompassing an area measuring 586 ft. x 696 ft. for shellfish grow-out;

Intertidal Geoduck Culture Area – 195 ft. x ft. = 2.45 acres

NE Corner: Latitude 57° 26.780' N Longitude 133° 21.089' W
SE Corner: Latitude 57° 26.666' N Longitude 133° 21.107' W
SW Corner: Latitude 57° 26.673' N Longitude 133° 21.286' W
SE Corner: Latitude 57° 26.788' N Longitude 133° 21.266' W

Lands are located in the Juneau Recording District.

GEOGRAPHIC: The proposed farm site is located on state-owned tide and submerged lands in Hobart Bay, approximately 38 miles north of Kake and/or 70 miles south Juneau, Alaska.

POLITICAL INFORMATION:

BOROUGH/MUNICIPALITY: The proposed aquatic farm site is located outside of any organized borough or municipality

REGIONAL CORPORATION: Sealaska Corporation

FISH AND GAME ADVISORY COMMITTEES: Juneau/Douglas and Kake Fish and Game Advisory Committee.

PLANNING AND CLASSIFICATION:

LAND MANAGEMENT PLAN: Central/Southern Southeast Area Plan, Sumdum-Stephens Passage Planning Region, Sumdum - Central, Unit ST-14, adopted November, 2000.

SURFACE CLASSIFICATION: The Central/Southern Southeast Area Plan designates state owned tidelands in the area of the proposed aquatic farm as Habitat (Ha).

Area Plan Designation Definition: Habitat (Ha).

Managed Resources/Intent: Protect estuarine wetlands, harbor seal concentration area, salmon schooling area, black bear concentration area during spring, and commercial harvest.

Resources: The are included in this designation of Hobart Bay includes a harbor seal concentration, and a juvenile pink and coho salmon rearing and adult salmon schooling area. The unit is a Dungeness crab community and commercial harvest area. Black bears concentrate along the shoreline in spring.

SURFACE MINERAL ORDERS: By statute, exploration for locatable minerals is allowed on all state lands except those specifically closed to location. The proposed site is not in an area specifically closed to mineral entry.

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 in the future, at the applicant's expense, if boundary conflicts or disputes over acreage arise.

APPRAISAL: The Division of Mining, Land and Water has approved an administrative 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. The applicant has the option to have a site-specific appraisal done, at the applicant's 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 division-approved appraisal will establish the rental for the lease and the fee schedule will no longer be an option.

PUBLIC/AGENCY NOTICE AND COMMENTS: Public notice of the proposal has been sent to various newspapers, post offices, agencies, boroughs/cities, native corporations, , Fish and Game Advisory committees, etc. Public and agency comments are welcome during the comment period and will be considered in the final best interest finding. Only those who provide written comments during the comment period or who testify at a public hearing 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. The public comment period begins on August 17, 2011 and will end at 5:00 p.m. on Thursday, September 15, 2011.

The preliminary best interest finding is subject to public comments received during the comment period. The final best interest finding will consider and address any comments related to the subject proposal and will be available on or about October 10, 2011. If significant changes occur to this decision as a result of public comments received, additional notice will be sent to those who provided comments, either in writing or by testifying at a public hearing.

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 site appear capable of supporting the farm activities proposed. Details listed for the proposed areas are summarized below.

Protection from Oceanographic and Atmospheric Extremes: There are no exposure notes from Shorezone imagery mapped data[1] for this area. The proposed aquatic farm operation project is in an area that appears to be protected from extreme oceanographic and atmospheric extremes. The proposed support facility structures have a sound configuration and anchoring system and are comparable to existing farm gear used in Southeast 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 a healthy environment for other marine organisms.

Sufficient Water Depth: Parcel 1 is in an intertidal area and the applicant proposes to use on-bottom culture so this criterion does not apply.

[1] 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).

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[2] 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[3]. However, the proposed aquatic farm operation is not located within 300 feet of the mouth of an anadromous fish stream. The closest anadromous stream is 2,300 ft from the site 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 milling or migrating through the area.

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, as long as conditions are in place for the pacific herring sac-roe gillnet fishery. See details below.

Commercial Fisheries: The proposed aquatic farm is located in ADF&G Commercial Fisheries Division statistical area sub-district 110-33. Commercial salmon purse seining, Pacific herring, and Dungeness crab fisheries had landings in this statistical area during 2010. 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 in place for the pacific herring sac-roe gillnet fishery.. Details on each commercial fishery are listed below.

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.

Salmon: Commercial salmon purse seining landings did occur in the area for Chinook under 21 inches, sockeye, coho, pink, and chum salmon in 2010. No salmon set netting, salmon trolling, hand or power trolling, drift gillnet salmon fishery occurred in the area in 2010.

Herring: The Hobart Bay/Port Houghton herring stock has received periodic commercial harvest since the earlier 1970's for food and bait and more recently for sac-roe. The winter food and bait fishery takes place during the winter from October to March. Sac-roe fisheries take place in the spring typically when herring are spawning. In 1996, the Board of Fisheries modified regulations to allow any remaining bait quota to be harvested by sac-roe gillnet fishery. The first herring sac-roe gillnet fishery occurred in 1996 and has occurred 6 times since including 3 out the past 4 years. The average herring sac-roe harvest has been 350

[2] 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).
[3] 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.

tons. The winter food and bait fishery has only occurred once since 1996 in which 204 of the 223 ton quota was harvested. Herring gillnets are typically set both in the intertidal and subtidal zones. The leadline of the gillnet is often on the bottom. When a fisheries have occurred, gillnets have been observed to be set on or around the site. Therefore, there is potential for negative interactions between the mariculture operations and gear at the site and herring gillnets. Herring have been observed to spawn on and around site, but are not known to spawn near site. The earliest first date of observed herring spawning since 1985 is April 18 and latest date of observed herring spawn is May 20.

If a mariculture site were to be permitted at the proposed site, a no in-water work window from April 15 through June 15 will be required. To ensure that the herring populations are not impacted by the proposed project, the following condition will be added to the operation permit:

> "No in-water aquatic farm activities shall be permitted at the aquatic farm site from **April 15 through June 15** of any year for protection of herring during staging and spawning activities and to allow juvenile herring to hatch, group, and move out into feeding areas. Aquatic farm in-water operations can resume earlier then June 15 with approval from ADF&G in the event that spawning does not occur on or near the site or if the 21-day period after the last herring spawning required for protection of eggs occurs before June 15. The aquatic farm site is within core Pacific herring spawning areas that are crucial to the Hobart Bay/Port Houghton herring stock. All eggs must be allowed to hatch, even though this may result in loss of aquatic farm products being cultured. The Department of Fish and Game shall be notified, in writing, within five days of any herring spawning event that deposits eggs on any farm gear or equipment. Operators shall do their best to notify ADF&G verbally within 24 hours of a herring spawn event. (5 AAC 41.250 (a)(5) and (6))"

Shrimp/Tanner Crab: Spot shrimp and tanner crab landings were reported in 2010 for this statistical area.

Dungeness crab: Commercial Dungeness crab harvest landings have occurred in this statistical area in 2010. Aerial surveys of the Dungeness grounds in central and northern Southeast are conducted every June after the commercial fishery opens. An aerial survey of the area conducted in June of 2011 didn't note the presence of Dungeness pots in the project area or in the larger statistical area 110-33, but thus far in the ongoing 2011/12 season there has been harvest by two vessels. This harvest for 2011/12 is currently unreportable due to confidentiality issues (fewer than three permits fished), but harvest thus far in 2011/12 has exceeded the ten year average.

It is likely that this proposed farm site will have an appreciable impact on commercial Dungeness fisheries and on Dungeness habitat, in the immediate project area due to displacement of habitat. Aerial surveys of Southeast have shown use of the nearshore intertidal area by commercial Dungeness interests, often with pots going dry at low water on minus tides. Also, installation of the vexar tubes with hydraulic hoses could disturb or damage crabs buried in the substrate. The application notes the vexar tubes will be in place for two years, likely displacing Dungeness crabs from the proposed farm site. The few Dungeness permit holders from Hobart Bay could be displaced and which could further concentrate commercial Dungeness effort in Southeast Alaska

***Sport Recreational Fishery*:** Since no permit system is in place for the personal use fishery, the amount of effort and harvest in the area would be difficult to gauge. The Statewide Harvest Survey does tally 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. It is likely that the project area is also used by personal use Dungeness fishers. The proposed aquatic farm site is not expected to cause any significant alterations to the existing sport recreational fishery use.

Subsistence Use: There is no customary and traditional use finding for Dungeness in statistical area 110-33, so subsistence fishing for Dungeness is not allowed in Hobart Bay.

Anchorages: 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 haul outs and rookeries, seal haul outs and pupping areas, and walrus haul outs.

***Sea Bird Colonies*:** There are no sea bird colonies identified within 1 mile of the proposed site.[4]

***Eagle Nest*:** There are no eagle nests within 330 ft of the proposed project site parcel[5]

Sea Mammal Habitat: There are no sea mammal haul outs within 1 mile of the proposed site[6].

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*:** The operation and development plan for this project sufficiently describes how the operation will improve the productivity of the species intended for culture above what would occur in natural conditions using approved methods. Approved methods include predator exclusion, reduction of competing species, destiny manipulation, import of naturally-produced seed, import of hatchery produced seed, programming harvest to optimize growth and shellfish condition, and habitat improvements. See details below in Request for Additional Information section for clarification on operation and development plan.

Maintenance: The operation and development plan for this project indicates that support facilities and culture gear and anchoring system will be installed with sufficient anchors and maintained.

[4] U.S. Fish and Wildlife Service, (current year). Beringian Seabird Colony Catalog -- computer database. U.S. Fish and Wildlife Service, Migratory Bird Management, Anchorage, Alaska 99503.
[5] U.S. Fish and Wildlife Service, Migratory Bird Management. Alaska Bald Eagle Nest Atlas-computer database. 2008.
[6] 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.

Rotation Schedule: The projected rotation schedule is consistent with the life history of the species intended for culture.

V. Species to be Cultured and Site Suitability

Pacific geoducks (Panopea abrupta) are reported to occur from Newport Bay California, north to Kodiak Island[7], but other sources indicate the northern extreme of the range is Sitka, Alaska[8]. 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[9]. Geoducks occur in soft mud, sand, or pea gravel substrates, in which adult clams burrow to depths for 1 meter[10,11]. The applicant description for the proposed site indicated that the substrate at the intertidal site are listed as sandy and muddy. ShoreZone substrate data[12] is not available for the shoreline near the site.

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 moonsnail (*Euspira lewisii*), worms, sea stars, and crabs. Sea stars such as *Pisaster brevispinus* and *Pcycnopodia 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 stenolepsis) also has been documented[13]. Predator netting is highly recommended for geoduck aquatic farm sites. The applicant plans to utilize predator exclusion devices (PVC with plastic mesh tops) for a duration of two (2) 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).[14,15] Although they may occur in commercial quantities in some areas, horse clams are not generally harvested commercially.[16], but they are generally harvested for sport.[17] 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, the proposed site is capable of supporting the activities

[7] O'Clair, R. M. and C.E. O'Clair. 1998. Southeast Alaska's Rocky Shores: Animals. Plant Press, Auke Bay, AK. 564 pp.
[8] Foster. 1991. Intertidal Bivalves. A Guide to Common Bivalves of Alaska.University of Alaska Press.152 pp.
[9] 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.
[10] 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.
[11] Gordon, D.G. 1996. Field Guide to the Geoduck. Sasquatch Books, Seattle. 48 pp.
[12] 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).
[13] 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.
[14] 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.
[15] Gordon, D.G. 1996. Field Guide to the Geoduck. Sasquatch Books, Seattle. 48 pp.
[16] Quayle, D. B. and N. Bourne. 1972. The clam fisheries of British Columbia. Fisheries Research Board of Canada. Ottawa.
[17] 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.

proposed. The proposed parcels in this aquatic farm operation project are located in an area that will have suitable biological and physical characteristics to culture geoduck clams.

VI. Request for Additional Information

The applicant needs to provide the following information:

Clarification on the discrepancy between the numbers of vexar tubes projected to be used at the site on the operation development plan and the project description. The plan indicates 110,000 tubes and the project description narrative indicates 400,000 vexar tubes.

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 (or $1,250 with an association bond) 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.

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/PENDING INTERESTS: There are no known pending interests at the location of the proposal.

TRADITIONAL USE FINDING: The proposed aquatic farm should cause no known disruption of 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.

CENTRAL/SOUTHERN SOUTHEAST AREA PLAN INFORMATION SPECIFIC TO THIS PROPOSAL: This farm site lies within the Sumdum – Stephens Passage Planning Region of the Central/Southern Southeast Area Plan and more specifically within the Sumdum – Central area, Unit ST-14. There could be temporary disruption to the harbor seal population during the planting of the vexar tubes which would take place at a very low tide. Once the tubs are in and the geoduck seed planted there would no longer be any disruption until the tubes are withdrawn by year 2 and then again when the geoducks are harvested, possibly at year 10.

UPLAND OWNER/MANAGEMENT: The uplands adjacent to the proposed aquatic farm are Native Owned.

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 Central/Southern Southeast Area Plan that may impact this proposal. Measures taken to mitigate impacts on the resources identified in the above-mentioned plans are listed below.

Pending/Existing Uses:

1. The Central/Southern Southeast Area Plan notes that there are two transfer sites, one to the north and one to the southwest of the proposed aquatic farm site. It is not believed the aquatic farm would cause any conflict with the transfer sites. Other uses of the area such as Dungeness crab harvest, spring black bear concentrations, commercial and/or sport fishing, pink and coho salmon rearing and adult salmon schooling. The planting of geoduck seed and the harvest would be the only times when there would be any human presence on the farm. Geoducks are not handled once they are planted until they are harvested. Therefore, it is not likely the proposed farm would cause any long-term negative effects on any of the existing uses of the area.

2. There are no other known pending use conflicts or potential negative impacts to nearby communities or residential land due to the placement of this farm at the proposed location.

2. Information available suggests the aquatic farm will not disrupt traditional and existing human uses of the site such as subsistence, anchorage, commercial and/or sport fishing, recreation, and/or tourism.

3. There are no historic and cultural resources known to exist in the area.

Public Access: Public access has been and will be protected in accordance with 11 AAC 63.050(b)(6) and 11 AAC 53 and will be addressed in any resultant lease agreement.

Public Trust Doctrine: Any resultant lease agreement is 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: In addition to the mitigation measures identified above under Pending/Existing Uses, paragraph 2, any resultant lease may include additional stipulations necessary to mitigate conflicts identified during the public/agency comment period

Social, Economic, and Environmental Concerns: There are no known significant social, economic, and environmental effects that may come about from the proposed aquatic farm lease.

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/DISADVANTAGE: The advantage of issuing this lease on state owned tide and submerged lands is the potential employment opportunities as well as any secondary jobs created or increased from businesses involved in marketing, transport or sale of the farmed products and will help diversify the economy of the state by utilizing state tide and submerged lands for an aquatic farm.

There seems to be no obvious disadvantages of allowing this activity on state owned tide and submerged lands. The public should be aware that access through the site, as well as access to any of the common property resources not being cultured at the site are public uses that remain intact. Therefore, and as mentioned above, any resultant lease would stipulate the requirement that signs be posted informing the public of their rights at the aquatic farm site.

RECOMMENDATION: Considering the information known at this time and described within this decision, it appears to be in the state's best interest to issue the lease for approximately 9.14 acres more or less to the applicant for intertidal culture. Any resultant lease will include stipulations that may be identified as a result of public comments. Approval of the application is recommended with a security bond set at $2,500 or $1250 with an association bond.

John S. Thiede

John S. Thiede, Aquatic Farm Program Manager

August 15, 2011

Date

Project Description – Hobart Bay Geoduck Farm – The Sandspit

The proposed aquatic farm is located about 70 nautical miles south of Juneau at Hobart Bay where the Alaska Native Corporation, Goldbelt Incorporated, is the upland owner of approximately 30,000 acres of land. Upland facilities, where the company's caretaker resides, are located slightly over three miles from the site, which is accessible by skiff or over the existing road system. All equipment and storage will be located at Goldbelt's upland facilities.

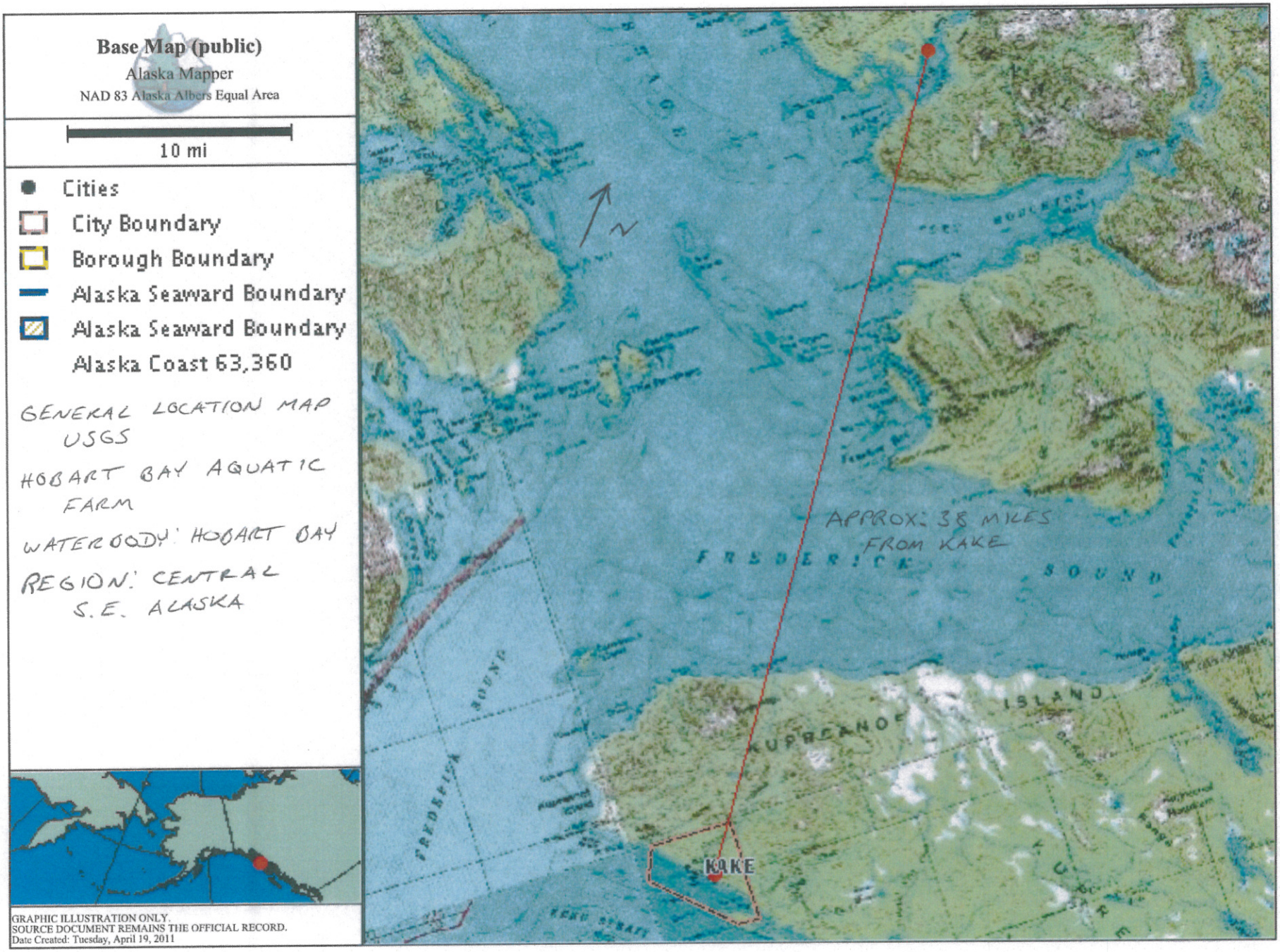
The aquatic farm site is composed of a parcel located on state-owned, intertidal area totaling approximately 9 acres. The parcel will be a 195.2 yards x 232 yards (9.14 acres) growing area for intertidal culture of geoducks.

The gear for planting will be 4" vexar tubes with plastic mesh tops. Within two years of planting, the vexar tubes will be removed, leaving the planted section free of any gear.

Equipment for planting will include portable water pump with a 200-foot discharge hose to hydraulically install the vexar sleeves into the substrate. Various vessels will be used for transporting supplies and personnel to and from the site.

Harvest gear will be diver-operated 1/2" waterjets supplied by a centrifugal water pump delivering 125 psi water pressure. Similar gear may also be used for beach harvest during low tide events. Harvested geoducks will be handled according to ADEC regulations and current market requirements.

Goldbelt's facilities at Hobart Bay will provide all necessary logistical support for the operation.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HOBART BAY AQUATIC FARM
WATERBODY: HOBART BAY
REGION: CENTRAL S.E. ALASKA
APPROX. 38 MILES FROM KAKE
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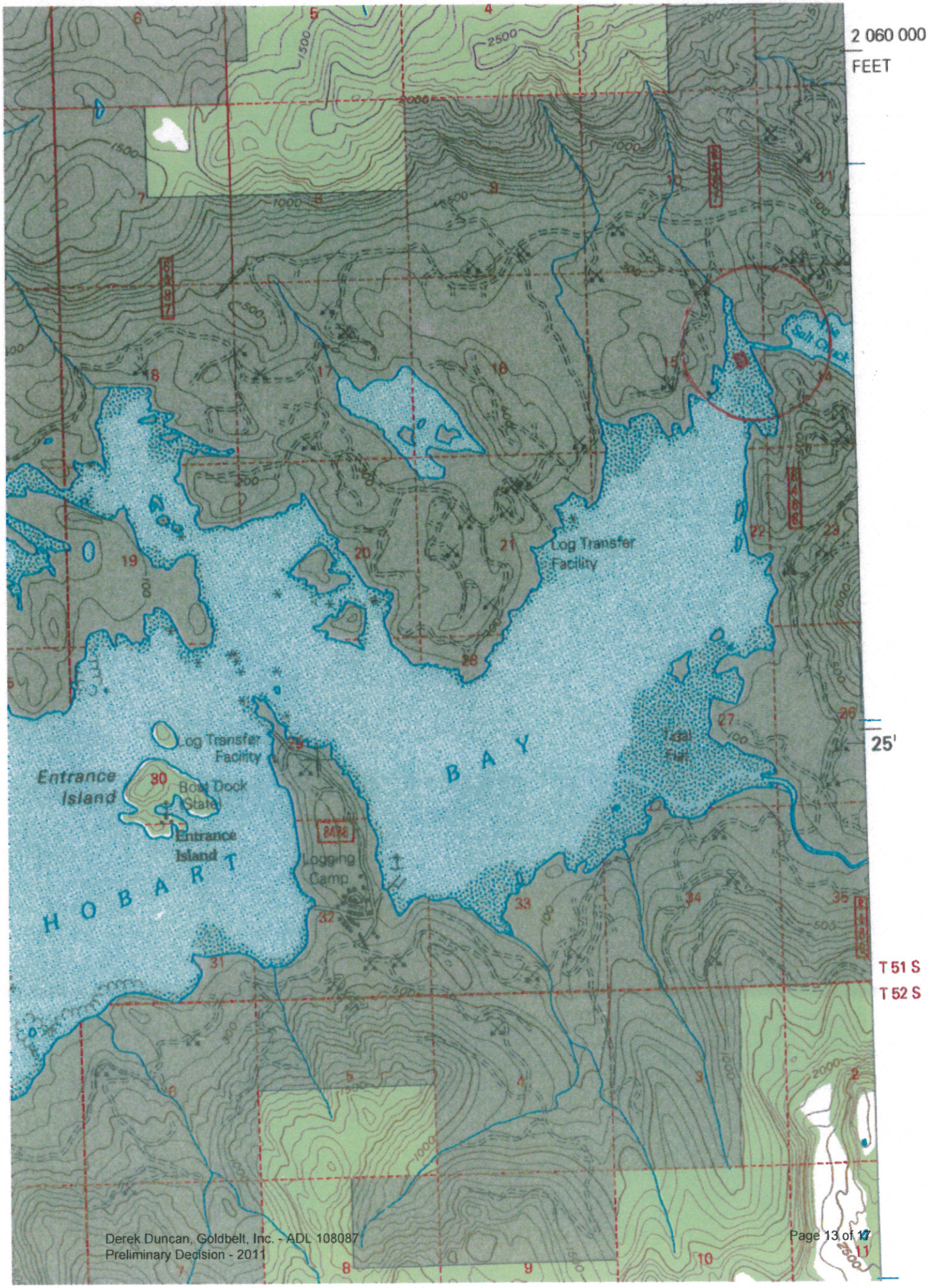
KUPREANOF ISLAND
KAKE
GRAPHIC ILLUSTRATION ONLY.
SOURCE DOCUMENT REMAINS THE OFFICIAL RECORD.
Date Created: Tuesday, April 19, 2011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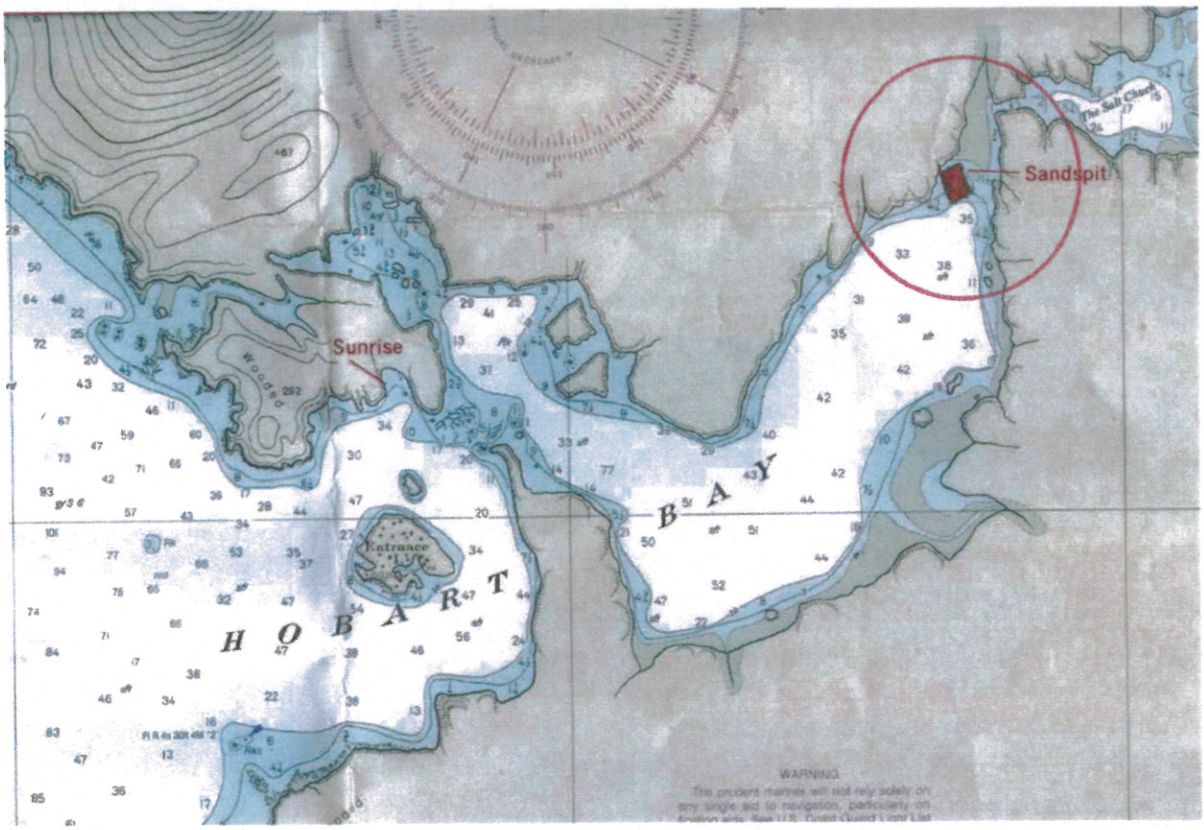
Goldbelt Inc.

Hobart Bay, proposed geoduck mariculture sites
Sandspit & Sunrise

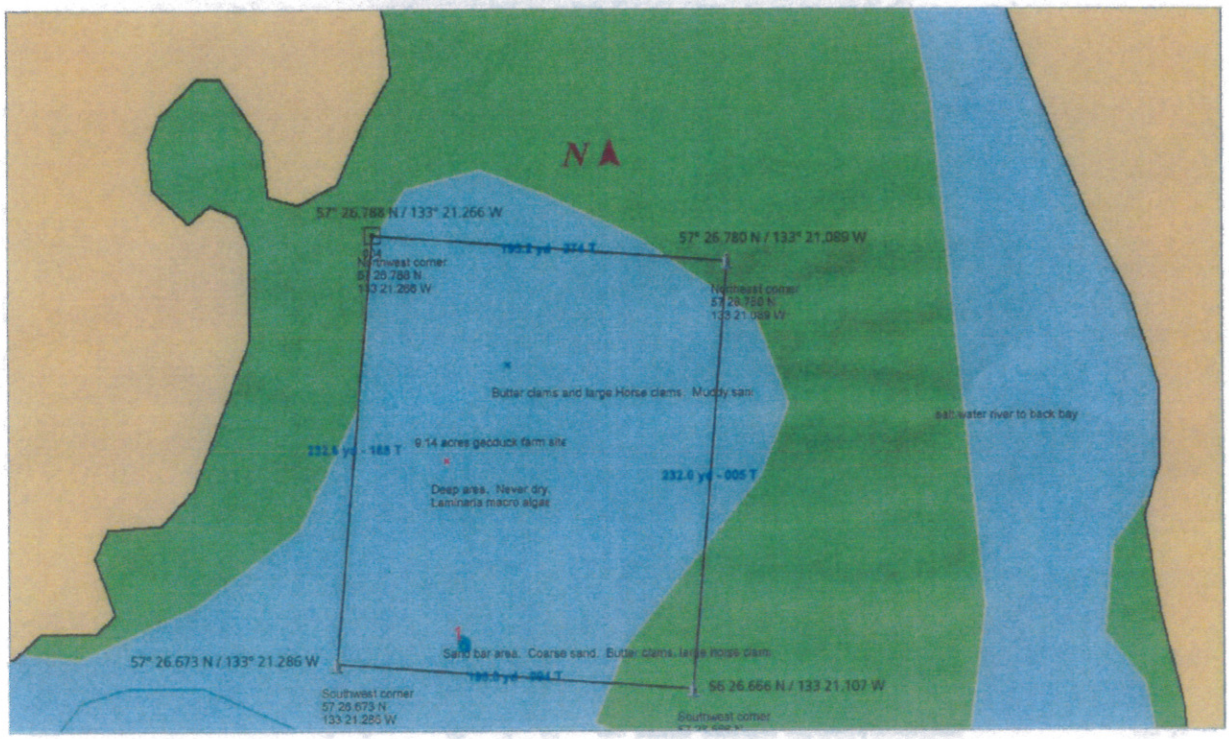


Sandspit, Hobart Bay
NE Corner: 57° 26.780 N / 133° 21.089 W

Graphics Courtesy of Clam Gardens of Alaska.

Sandspit, Hobart Bay
NE Corner: 57° 26.780 N / 133° 21.089 W

U.S. ALASKA-SOUTHEAST COAST.STEPHENS PASSAGE. HOBART AND WINDHAM BAYS. - 1 : 10,016
(Passport World Charts - vector format) Chart #U17363_2 - Depth Units:



DO NOT USE FOR NAVIGATION

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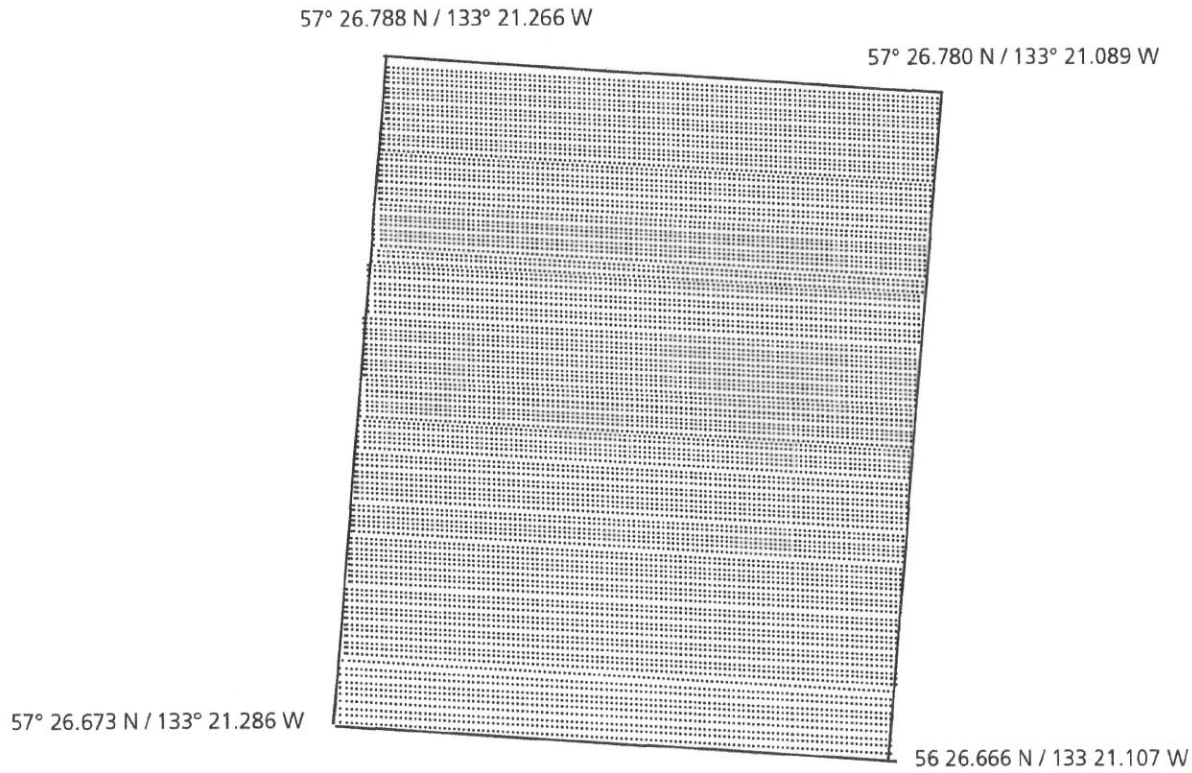
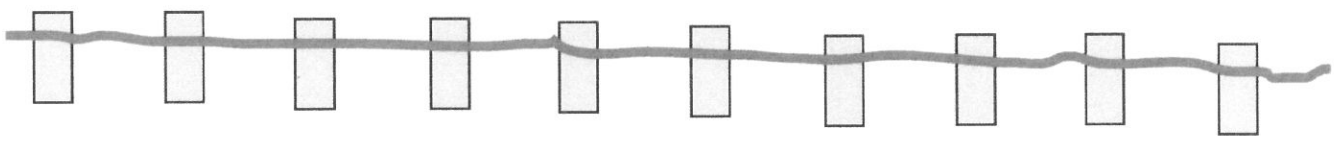
Planting Plan & Profile at Sandspit Site in Hobart Bay



Profile of vexar tubes planted on one-foot centers:



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Hobart Bay Geoduck Planting Plan, Sandspit 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" x 12" vexar mesh tubes topped with light plastic mesh socks. Two to three juvenile geoducks will be planted in each tube before the socks are attached. 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. Over a five-year period we expect to install approximately 400,000 vexar tubes, or approximately 90,000 per year. Within two years of planting each section of 90,000, the vexar tubes will be removed, leaving the planted section free of any gear.

See site plan on following page..

Graphics Courtesy of Clam Gardens of Alaska.