



Background on the Proposed Regulation Revisions Dealing with Mariculture and Aquatic Farming

Public Comment Period: May 05, 2009 - June 22, 2009

5 AAC 41.200(2) is proposed to be changed to remove an incorrect regulation citation.

This is a housekeeping revision. Southcentral Habitat Division staff indicated that this had an incorrect citation and requested that this be changed.

5 AAC 41.240(a)(5) is proposed to be changed to establish provisions regarding predator exclusion netting and importation of hatchery-produced seed to the on-bottom culture.

Predator exclusion netting and planting of hatchery-produced seed are routinely part of an approved operation development plan submitted by applicants for subtidal and intertidal culture used at on-bottom farm sites. Potential farm site projects must meet operational standards considered by the agencies to be "typical" for intertidal, subtidal, or suspended aquatic farm operations. Predator exclusion devices or predator control are key elements to any farming business and effectively increase survival of the cultured species being farmed. Planting is generally preceded by the installation of a predator exclusion system.

Geoducks are especially vulnerable during the first 1 to 2 years of life when they are still relatively close to the surface. Once they reach a size and degree of maturity where they reside several feet below the surface, they have an increased chance of survival and fewer predators. PVC tubes traditionally used by aquatic farmers culturing intertidal geoducks are also covered by predator exclusion netting on the top of the PVC tube for a limited duration. Predator exclusion netting is a typical gear used to protect geoducks planted subtidally from predation.

AS 16.40.100(e) requires permit holders to restore the wildstock harvested on the farm site to population levels found before the farm site was permitted. In other words, there must be a population of geoducks on the site at the time of permit termination equal to the population of geoducks on the site at the time the permit was issued. The state is obligated to ensure that this requirement is met. As part of the proposed regulations, permit holders must use predator exclusion netting as part of their farm operations for on bottom farm sites to improve survival of cultured hatchery produced on-bottom juvenile indigenous species.

For geoducks, Washington Department of Natural Resources Best Management Practices for Geoduck Aquaculture on State Owned Lands in Washington state (June 2006), recommends that a predator exclusion system made up of tubes or netting be installed before planting of hatchery-produced seed and then removed once young geoducks are no longer vulnerable from most predators. In British Columbia (BC), the predator exclusion mesh covers planted rows for up to two years to improve survival of hatchery-produced seed.

The proposed provision to add hatchery-produced seed or spat as a method for improving the productivity of the species being cultured on the farm site is well known for littlenecks and geoducks. This provision provides some assurances that farmers provide for sustainable management of their farms where they are culturing indigenous species and that they are not just collecting wildstock. Best management practices recommend that aquatic farmers purchase, plant, and cultivate hatchery-produced seed in the best possible way to maintain survival to meet production goals in their operation and development plans and for restoration of the site in the event that they cease operations. Because of the replacement requirement of harvested wildstock, the use of predator netting provides another measure of assurance that the hatchery-produced seed will survive.

5 AAC 41.250(a)(4) is proposed to be changed to reorganize the requirements for identifying an aquatic farm or hatchery and allow for markings on subtidal operations.

Both the current ADF&G aquatic farm permits for subtidal operations and DNR aquatic farm leases for all operations have requirements for marking the corners of the farm site. The aquatic farm operation permit for subtidal geoduck farms reads “The farm site will be marked on at least four major corners that best delineate the general outlines of the site with concrete block anchors, weighing a minimum of 100 pounds and otherwise sized to secure the marker buoys, under the foreseeable local weather conditions, connected to green #A-2 Polyform or similar buoys by sinking poly line with a maximum 25 foot scope at local, extreme high water. Corner marking buoys must be maintained and easily discernible for the duration of this aquatic farm permit.” A stipulation in the aquatic farm lease issued by DNR reads “The lessee is required to visibly mark the corners of the site and in accordance with USCG marking requirements. If a site is not in full operation, marking the corners of the operational area is acceptable”. Therefore the proposed revision is consistent with what is currently in the aquatic farm lease and operation permits.

For all farm operations with different culture methods, this proposed provision will help alleviate any conflicts where farm sites are in close proximity to each other and when they share boundaries. In addition, for subtidal operations it will help alleviate any conflicts where farm sites are adjacent to commercial geoduck wildstock beds reserved for limited entry commercial divers, or are surrounded by areas that have high densities of geoducks that are common property public resources. This proposed provision protects the farmer’s investment by defining their farm site footprint and helps the state find a way to maximize utilization of shellfish resources including geoducks while upholding its obligation as the steward of the resource for the citizens of Alaska.

Marking all farm site corners with buoys on the surface and using boundary markers for subtidal on-bottom farm sites using sinking ground lines (lead lines) is a standard way to help farmers keep within their farm site footprint for harvesting wildstock geoducks and for planting and harvesting their hatchery-produced geoducks. This approach is used in British Columbia for subtidal geoduck farm plots to ensure that tenured boundary lines

are clear and visible underwater to aquaculture geoduck harvesters so that activities such as harvesting and farming are conducted on the tenured farm location. The standard method is to use sinking ground lines connected by 25 lb cement blocks placed every 50 meters.

5 AAC 41.250(a)(11) is proposed to change to alter the proportion of amount paid from the sale of wildstock from an aquatic farmer for live geoducks and for processed geoducks.

The department sought to address concerns raised by permit holders of geoduck farm sites on the compensation percentages. Alaska Statute (AS 16.40.100(f) requires the state to receive reasonable compensation for the harvest of wildstock geoducks in excess of 2,000 pounds per acre. This compensates the state for transfer of a commercially significant amount of common property resource to private ownership. The department conducted a cost analysis to determine what various recompensation percentages translate into in terms of profit to the farmer after harvest expenses are considered. Cost estimates for geoduck harvesting for 2007 were based on data provided by the Southeast Alaska Regional Diver Fishery Association (SARDFA). Aquatic farm operation permit holders were asked for additional data and they requested that the department use the commercial fishery harvest costs. Through the cost analysis, the harvesting expenses were found to be approximately 50% of the gross sales of the geoducks.

Reasonable compensation percentages in terms of net profits were further analyzed to determine the effects of different allocations to the farmer and to the state. After a thorough review, the department proposed a 50/50 split of the profits between farmer and the state. The 50/50 split scenario correlates to 24 percent of gross sales each for the farmer and the state. That is, if the reasonable compensation were set at 24 percent of gross, the state would get 24 percent and the farmer would get 24 percent, and expenses would comprise the rest. The department feels that the proposed 50/50 split is fair and is in the best interest of the people of Alaska. The proposed regulations reflect the 50/50 split at 24 percent for live geoducks and the 9 percent for processed geoducks. The processed percentage was determined by a formula since no recent data was available for processed geoducks. As a reference, the percentages currently in regulation are 50 percent for live geoducks and 20 percent for processed geoducks.

History of the provision: AS 16.40.100(f) allows the Commissioner, after a best interest finding, to authorize the harvest and sale of wild geoducks exceeding an insignificant population, as defined in 5 AAC 41.235, if the permittee pays reasonable compensation to the department. This statutory provision was enacted to address several geoduck farm sites that may still have a significant amount of wild stock on them and were permitted prior to the Alaska Trademark Shellfish v. State of Alaska decision and subsequent legislation in 2005. Reasonable compensation is required because shellfish are a public trust resource committed to the common use of the public and the state stands as a trustee to protect the interest of the people of the state.

Aquatic farm operation permit holders of geoduck farms are allowed to harvest insignificant amounts of wildstock geoducks from their farm sites under AS 16.40.100(b)(2). Currently, farm sites are not permitted if there is a significant amount of wildstock on them under AS 16.40.105(5).

5 AAC 41.257 is proposed to be changed to alter the security requirements for wildstock restoration.

The proposed regulations reflect discussions made with the permit holders of geoduck farm sites on how to handle the financial security and clarify the reseeded requirement. ADF&G worked closely with the aquatic farm operation permit holders to develop an option that looks out for the public interest while giving permit holders that harvest wildstock off of their farm site the ability to waive the security requirement for wildstock restoration if they can show that farming is being conducted on the farm site. Current regulations require the permit holder to establish a certificate of deposit with the Commissioner within 30 days after harvesting wild stock.

The department used recommendations provided by permit holders regarding the type of information that could be provided as proof of reseeded. The requirements in the proposed regulation provide the state with some confidence that the permit holders are planting optimally sized hatchery-produced geoducks, deploying predator exclusion materials to improve survival through the vulnerable life stages, and growing them to a viable stage. The proof of reseeded information and predator netting are reasonable requirements to protect the public's interest.

Under the proposed regulation, if an aquatic farm operation permit holder does not want to provide proof of reseeded information; they will be required to provide proof of a certificate of deposit or security bond in the amount necessary to cover the costs of the purchase of hatchery-produced spat sufficient to fully reseed the farm site based on a ratio of five hatchery-produced spat for each wild clam harvested on the farm site. If they fail to establish a certificate or bond; this may result in the forfeiture of the aquatic farm operation permit.

5 AAC 41.270(a) is proposed to be changed to clarify when a permit holder must notify the department before the harvest of wildstock.

This revision was added to provide further clarify the provision on notification.

5 AAC 41.276 is a proposed new section that provides for hatchery management plans and reporting requirements.

This provision reflects hatchery operation permit conditions for the Alutiiq Pride Shellfish Hatchery (APSH). APSH suggested that we develop a Basic Management Plan (BMP) similar to BMPs developed as part of the salmon hatchery permitting process. The department anticipates the BMP will provide an excellent mechanism for further

discussions with APSH and lay the foundation for improvements in genetic management and production. On April 8, 2008, the department added the requirement for the APSH BMP and an annual plan as a condition to the APSH operation permit and provided funding to the APSH to complete a draft of the BMP that year. On August 13, 2008, APSH submitted a draft APSH Basic Operating Plan and the department reviewed and made revisions to the document. External peer reviewers provided additional comments on the plan. The department is now reviewing the external review comments and will have continued discussions with APSH to finalize the BMP. The ADF&G Commissioner has approval authority for the final APSH BMP. Once approved, the plan will be a condition of the hatchery operation permit and will be followed and adhered to unless a request for an amendment or change in the BMP is approved by the Commissioner.

Another benefit of the BMP is it provides the department with a 5 year projection of research plans for the Mariculture Technical Center that is a part of APSH. This information will facilitate the review of potential Fish Resource Permits associated with future research projects conducted at the facility. The plan can also be used by the state and APSH by the hatchery to help provide background information on operations and management of the facility in the event of funding requests to provide some assurances and accountability for public funds that may be dedicated to APSH.