

**Department of Environmental Conservation
House Special Committee on Fisheries
Mariculture Overview: Regulatory Structure & Potential of Expansion of the Industry
March 11, 2014**

Background

The Department regulates shellfish growing areas and requires a permit for certain harvesting, processing and shipping activities. Background information is provided below, along with data maintained by the Department. There are two main elements to shellfish regulation: 1) classified growing waters; and 2) operation permits.

A shellfish growing area may be either an aquatic farm as defined by AS 16.40.199 or a natural shellfish growing area. Alaska has approximately 27 classified growing areas. Some growing areas encompass large areas and may include more than one aquatic farm.

Shellfish & Water Quality

Oysters, clams, mussels, and scallops are filter feeders that pump large quantities of water through their bodies when actively feeding. During this process, molluscan shellfish can concentrate microorganisms, toxigenic micro-algae, and poisonous or deleterious substances when they are present in the growing waters. Concentrations in the shellfish may be as much as 100 times those found in the water. If human pathogens are concentrated to an infective dose, and if the shellfish are consumed raw or partially-cooked, human disease can result.

Growing Water Classification

The foundation of Alaska's shellfish sanitation program is ensuring that shellfish are harvested from areas free of contamination. The Food Safety and Sanitation (FSS) program establishes and classifies growing waters based on a sanitary survey. During the survey, FSS considers many factors, including:

- pollution sources that may contaminate the growing areas, including industrial or domestic wastewater discharges, seepage from water disposal sites, agricultural land, geochemical reactions, and presence of wildlife populations;
- meteorological facts that affect distribution to or delivery of pollutants to a growing area;
- hydrographic factors that affect distribution of pollutants throughout a growing area; and
- physical dilution factors.

Water samples are required to initially classify a growing area. Depending upon whether a pollution source has an impact on the water quality of a growing area, 15 to 20 samples are collected under various environmental conditions over a one year period. The growing area is then classified according to the information gathered in the survey. The classification determines how the shellstock from that area may be used (i.e., sold directly to the consumer ready-to-eat or required to go through a natural or artificial cleansing prior to sale to the consumer.)

After initial classification, two to five water quality samples must be collected annually from each area, depending on the classification and location of the growing area, and whether the area is affected by point or nonpoint sources of pollution. These samples are analyzed to ensure that water quality meets bacteriological standards for fecal coliform and may be analyzed for other potential sources of pollution, including pesticides and petroleum by-products, as established in the National Shellfish Sanitation Program Model Ordinance.

When feasible, the Department combines contiguous geoduck and oyster growing areas for sampling based upon the geography, hydrology and oceanography of each area, particularly if new farms are established. The annual fee for reclassification and sampling expenses will now be shared among wild harvesters and farmers in the entire area.

Permitting Categories

In addition to ensuring that shellfish are grown and harvested from safe growing waters, FSS has regulatory oversight of harvesting, processing, and shipping shellfish and issues shellfish permits for five different categories of activity:

1. **Harvester** (*a person who takes shellfish by any means from a shellfish growing area*)
2. **Re-shipper** (*a person who purchases shucked shellfish or shellstock from a dealer and sells the product without repacking or relabeling to another dealer, wholesaler, or retailer*)
3. **Shipper** (*a person who buys and repacks and then sells shellstock – also means a person who ships previously shucked shellfish*)
4. **Shucker-Packer** (*a person who shucks and packs shellfish*)
5. **Vessel** (*geoduck dive vessels*)

Although FSS does not utilize the term “farm” for permitting purposes, most “farms” receive permits as either a “Harvester” or a “Shipper.” If a shellfish operation consists of two or more different types of activities occurring at the same location, the operation is not required to obtain a permit for each separate activity. The operation receives one type of permit that is based on the activity with the highest applicable permit fee.

Permit Counts, by Year

	<i>Harvester</i>	<i>Shipper</i>	<i>Shucker-Packer</i>	<i>Vessel</i>	<i>Re-shipper</i>	<i>Total</i>
2013	200	31	6	87	0	324
2012	180	28	7	78	1	294
2011	158	28	8	79	1	274
2010	141	25	7	63	1	237