

2017

Geoduck Clam Biotoxin Monitoring Plan

This document describes Alaska's plan to manage risks associated with biotoxins that may be present in Alaska's waters at unacceptable levels.





State of Alaska Geoduck Clam Biotoxin Monitoring Plan

Purpose & Scope

This document outlines Alaska's plan to mitigate the risks to public health that are present in geoduck clams as a result of marine biotoxins, particularly Paralytic Shellfish Toxin (PST). This document has been developed in accordance with the National Shellfish Sanitation Plan Model Ordinance (NSSP-MO), adopted by reference at 18 AAC 34 under the authority of AS 17.20.005 that requires Alaska to define procedures and resources necessary to prevent harvesting of shellfish affected by marine biotoxins. Historically, the only known biotoxin present at levels of concern present in Alaska causes Paralytic Shellfish Poisoning (PSP).

There are no approved growing areas where geoduck are harvested that are considered "biotoxin-free" and this plan applies to all sub-tidal commercial harvest of wild and farmed geoduck clams in Alaska.

Nothing in this plan relieves a harvester, dealer, shucker-packer, or shipper from meeting requirements of the NSSP-MO.

Description of Wild Geoduck Subareas and Farm Sites

All geoducks commercially harvested and intended for human consumption must come from a growing area that

1. the Department of Environmental Conservation (DEC) has classified as approved;
2. DEC has designated in the open status; and
3. the Department of Fish and Game (DF&G) has opened to harvest.

For biotoxin management purposes, growing areas that DEC have classified as approved are subdivided by a DF&G subarea designation. Each growing area may encompass several "subareas" designated by DF&G for purposes of wild geoduck management as well as some geoduck aquaculture sites. Within each subarea are "beds" of wild geoduck, some of which are known and mapped.

Prior to the start of each harvest season, DF&G announces which subareas may be available to wild harvest (dependent on whether DEC has changed the growing area's status from closed to open based on PST results) and establishes the guideline harvest levels for each subarea. For fishery management reasons, the subareas that may be available to wild harvest rotate with each harvest season.



Below is a list of growing areas that DEC has classified as approved as of the date of this plan and each area's associated DF&G-designated subarea names and numbers, except that Annette Island has a separate and independent subarea identification system managed by the Annette Island Indian Community Department of Fish and Wildlife:

- Annette Island
- Duke Island East and West
 - Kelp Island (101-21-001)
 - Cat and Dog Island (101-23, 41-005)
 - Percy Islands (101-25-002)
 - Vegas/Hotspur Island (101-25-003)
- Gravina Island West
 - Vallenar Bay (101-29-004)
 - South Point Vallenar (101-29-003)
 - Middle Gravina (101-29-002)
 - Nehenta Bay (101-29-001)
 - Southern Gravina (101-29-005)
 - Blank Inlet CONTROL
- Kah Shakes
 - North Kirk Point/Bullhead (101-23-003)
 - Foggy Bay (101-23-001)
- Long Island (Kaigani Straits)
 - Kaigani Strait (103-30-001)
- Lower Cordova Bay
 - Lower Cordova Bay (102-10, 103-11, 103-21)
- Nakat Bay
 - Nakat Inlet (101-11-001)
- Sea Otter Sound (Cob to Whale Island) and NW POW
 - Warren Island and Kosciusko Island (103-90-005, 105-41, 43, 50-005)
 - Port Alice/Cone Bay (103-90-002)
 - Turn Point (103-90-003)
- Sea Otter Sound West
 - Davidson Inlet (103-90-004)
- Prince of Wales Island West
 - Maurelle Islands (103-70, 80, 104-40, 50-009)
 - Little Steamboat Bay (103-70-002)
 - Ulitka Bay (103-70-001)
 - Steamboat Bay (103-70-003)
 - St. Nicholas Channel/North Lulu Island (103-70-007)
 - Cone Island North (103-50-005, 104-40-005)
 - Cone Island South/Paloma Pass (103-50-006, 104-35-006)
 - Port Real Marina (103-50-007)
 - Port Mayoral CONTROL
 - Portillo Channel (103-50-008)
 - East San Fernando Island (103-60-001)



- Palisade Island (103-70-003)
- Blanquizal Island (103-70-005)
- Tlevak Strait and SW POW
 - Port Santa Cruz (104-30-002)
 - Northwest Dall Island (104-20, 30-003)
 - Bucareli Bay (103-50-003)
 - Tlevak Strait (103-40, 50-009)
- Slate Island
 - Slate Island (101-23-004)
- Sitka Sound South
 - Symonds Bay (113-31-002)
 - Taigud /Kolosh Islands (113-31-004, 113-41-004)
 - Biorka/Legma Islands (113-31-003)
 - Elevoi/Golf/Gornoi Islands (113-31-005)

Although DF&G has issued 23 aquaculture permits for geoduck as of the date of this plan and the Department of Natural Resources issues leases, there are only three permitted farmers whose sites are in approved growing areas. The following individuals have had/have a DEC harvester permit and aquaculture sites that are located in approved growing areas:

- Gary Zaugg and Steve Lacroix (Kah Shakes/Slate Island and Gravina Island West), deactivated (last issue CY2013)
- Kurtis Morin (Kah Shakes/Slate Island), deactivated (last issue CY2013)
- Casey Bakker (Kah Shakes/Slate Island), expires December 31, 2016

Growing Area Classification and Subarea Status

Because of the periodic presence of marine biotoxins in concentrations of public health concern and because Alaska has no routine harmful algal bloom monitoring or monitoring of sentinel species, although DEC may classified a growing area as approved, subareas within a growing area are in the closed status (and DF&G will not open a subarea to harvest) unless pre-harvest sample collection is conducted in accordance with this plan and other applicable agreements, and analysis shows acceptable levels of biotoxins and DEC changes the subarea status to open. Areas that have not been tested for PST or have failed PST tests may be opened by ADF&G with DEC concurrence only for processed geoduck meat.

DEC will designate an approved growing area in the open status and DF&G will open a subarea to harvest after receiving notification from DEC that one acceptable sample from that subarea shows PST levels less than 80 µg/100 gm of tissue.



Sample to Harvest Window

Depending on the location of the fishery or anticipated harvest, samples are collected five to seven days prior to each anticipated harvest.

For state-managed harvest subareas in the Ketchikan area:

- Sampling occurs on Saturday, Sunday or Monday¹.
- Harvest must occur within five calendar days of sampling.

For state-managed harvest subareas in the Sitka area:

- Sampling occurs on Saturday, Sunday or Monday.
- Harvest must occur within seven calendar days of sampling.

For aquaculture and the Annette Island fishery:

- The sampler notifies DEC (FSS and the Environmental Health Laboratory) at least two business days before anticipated sampling.
- Harvest must occur within five days of sampling.

Sample Collection

In accordance with this plan or applicable Letters of Understanding, 18 AAC 34, NSSP-MO, or the DEC Environmental Health Laboratory (EHL) Laboratory Submission Manual, industry will collect and submit for analysis² one sample consisting of three, undamaged geoducks from each subarea that is representative of the population of geoducks in bed(s) anticipated for harvest within that subarea.

Samplers must collect geoduck from bed(s) within a subarea that represent the population of geoduck in bed(s) within that subarea that will be harvested, except in the following situations:

1. inclement weather at the time of sample collection prevents the sampler's access to geoduck beds where harvest is planned;
2. the size of a subarea and proximity of geoduck beds to one another within that subarea are limited; or
3. the planned harvest is limited to one geoduck bed within a subarea.

¹ Unless the sampler has obtained written authorization from DEC to sample on another day of the week.

² All laboratory analysis must be performed by a laboratory found to conform or provisionally conform by the FDA in accordance with the requirements established under the NSSP MO in Chapter III. If a sampler submits samples for analysis to a lab other than the Alaska Environmental Health Laboratory, the servicing laboratory must submit the analysis results directly to the Alaska Shellfish Authority (DEC) for review.



In one of the situations listed above where a sampler does not collect samples from geoduck bed(s) within a subarea that represent the harvested geoduck population, the sampler will document the reason for deviation from this plan on the laboratory submission form at the time of collection. DEC may request additional information to support the documented reason, including weather reports and information detailing harvest locations.

A vessel used by a sampler must meet the minimum safety requirements set forth by the US Coast Guard if a DEC observer is on board. DEC reserves the right to require a sampler submit to a vessel inspection allow an onboard observer during sampling. Should the minimum vessel safety requirements not be met upon inspection by DEC or a sampler refuses to allow an onboard observer during sampling, any samples collected during that trip will not be analyzed, resulting in subarea(s) remaining in the closed status. If a DEC observer is on board a sampling vessel the State is responsible for all appropriate insurance, all personnel safety equipment, including a USCG approved personal floatation device and survival suit.

Samples that are not collected or submitted in accordance with this plan or applicable Letters of Understanding, 18 AAC 34, NSSP-MO, or the DEC Environmental Health Laboratory (EHL) Laboratory Submission Manual may not be analyzed for regulatory purposes and the area cannot be open for live sale harvest³.

Analysis

The EHL analyzes the visceral balls of three composited geoduck clams (one sample) and utilizes laboratory analysis methods approved by Association of Analytical Communities (AOAC) as specified in the NSSP-MO.

Plan Modifications

In determining whether to designate a subarea within an approved growing area in the open status and whether contingencies, deviations, or other modifications to this plan are necessary during a season, DEC may consider requirements of the NSSP-MO and 18 AAC 34, historical data (e.g., PST levels, frequency, and other trends), reported illness, and other factors that DEC determines are relevant to protect the public's health.

Modifications to this plan may include increased number of samples from a subarea, increased frequency of sampling, mandatory labeling of geoduck products, mandatory shucking of geoduck to remove the visceral ball, or other measures that DEC determines allow the Department to reliably determine that changing a subarea's status from closed to open is protective of the public's health.

³ Except if the sampler obtains written approval from the Alaska Shellfish Authority.



For a subarea from which six consecutive samples results show PST levels at or above 180 μ /100 g tissue, DEC will require that sample collection be suspended for at least two weeks, at which time, sampling may resume.

Commercial Product Recall

Product recall, embargo, emergency harvest subarea closure, and emergency shellfish sampling programs may occur when sample analysis indicates unacceptable levels of a marine biotoxin where product has already been harvested.

In the case of unacceptable levels of PST, firms that are allowed under their permit to ship or sell geoduck must either eviscerate or destroy all product that has not been distributed and must initiate recall of product that has already been distributed.

DEC will not initiate a post-harvest lot sampling program if all the sampling requirements set out in this plan are adhered to.

Contingency Plan for Other Marine Biotoxins

There are no known cases of Amnesic Shellfish Poisoning (ASP) or Diarrhetic Shellfish Poisoning (DSP) ever having been associated with Alaska molluscan shellfish, including geoduck clams, nor are there documented areas where ASP or DSP toxin-forming organisms are known to be present at levels of concern. As a result, there is no routine monitoring of geoduck clams for the presence of these organisms. However, if DEC learns of the presence of unacceptable levels of toxins that cause ASP and DSP (as specified in the NSSP-MO) or an illness for which an epidemiological association exists between the illness and the consumption of shellfish from a harvest area, DEC may implement product recall, embargo, emergency harvest subarea closure, and emergency shellfish sampling programs until it is able to reliably determine that opening the subarea is protective of the public's health.