

2019 GEODUCK CLAM BIOTOXIN MONITORING PLAN

Includes Annette Island Geoduck Protocol

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



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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 shellfish growing area that:

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

For biotoxin management purposes, growing areas that ADEC have classified as approved are subdivided by an ADF&G subarea designation. Each growing area may encompass several “subareas” designated by ADF&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, ADF&G announces which subareas may be available to wild harvest (dependent on whether ADEC 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 from which geoduck clams are harvested that ADEC has classified as approved as of the date of this plan, and each area’s associated ADF&G-designated subarea names and numbers. The subareas designated to be opened for the **2019/20** season are indicated in bold text in the table below. Annette Island has a separate and independent subarea identification system that is managed by the Annette Island Indian Community Department of Fish and Wildlife:

ADEC Classified Shellfish Growing Area (SGA)	ADF&G Sub-area of Classified SGA <u>2019/20 Southeast Alaska Commercial Geoduck Clam Fishery</u>
Annette Island	Area 1 Walden Point to Cedar Point Area 2 Cedar Point to Point Davison Area 3 Walden Point to Kwain Hookoff Area 4 Kwain Hookoff to Point Davison
Duke Island East and West	➤ Kelp Island (101-21-001) (2019/20) Cat and Dog Island (101-23, 41-005) ➤ Percy Islands (101-25-002) (2019/20) ➤ Vegas/Hotspur Island (101-25-003) (2019/20)
Gravina Island West	Vallenar Bay (101-29-004) South Vallenar Point (101-29-003) ➤ Middle Gravina (101-29-002) (2019/20) Nehenta Bay (101-29-001) ➤ Southern Gravina (101-29-005) (2019/20)
Kah Shakes	➤ North Kirk Point/Bullhead (101-23-003) (2019/20) Foggy Bay (101-23-001)
Long Island (Kaigani Strait)	➤ Kaigani Strait (103-30-001) (2019/20)
Lower Cordova Bay	Lower Cordova Bay (102-10, 103-11, 103-21)
Nakat Bay	➤ Nakat Bay (101-11-001) (2019/2020)
Sea Otter Sound Davidson Inlet & Warren Kosciusko	Davidson Inlet (103-90-004) 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)
Prince of Wales Island West	Maurelle Islands (103-70, 80, 104-40, 50-009) ➤ Little Steamboat Bay (103-70-002) (2019/20) 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) (2019/20) Cone Island South/Paloma Pass (103-50-006, 104-35-006) Port Real Marina (103-50-007) ➤ Portillo Channel (103-50-008) (2019/20) ➤ East San Fernando Island (103-60-001) (2019/20) 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) (2019/20) ➤ Tlevak Strait (103-40, 50-009) (2019/20)
Slate Island	Slate Island (101-23-004)
Sitka Sound South	Symonds Bay (113-31-002) ➤ Taigud /Kolosh Islands (113-31-004, 113-41-004) (2019/20) ➤ Biorka/Legma Islands (113-31-003) (2019/20) ➤ Elevoi/Golf/Gornoi Islands (113-31-005) (2019/20)

Growing Area Classification and Subarea Status

An ADEC shellfish growing area may be classified as approved while ADF&G subareas within an approved shellfish growing area have a closed status. This is due to 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. ADF&G subareas within a classified shellfish growing area are open for harvesting only after the required pre-harvest sample collection is conducted in accordance with this plan and other applicable agreements, and analysis shows acceptable levels of biotoxins and ADEC changes the subarea status to open. ADEC will designate an approved growing area in the open status and ADF&G will open a subarea to harvest after receiving notification from ADEC that one acceptable sample from that subarea shows PST levels less than 80 µg/100 gm of tissue.

Areas that have not been tested for PST or have failed PST tests may be opened by ADF&G with ADEC concurrence only for processed geoduck meat.

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, and is restricted by passing PST levels (below 80 µg/100 gm of tissue). ADF&G opens the sampled area based on passing PST levels.

For state-managed harvest subareas in the Ketchikan area:

- Sampling occurs on Saturday, Sunday, or Monday¹.
- Harvest must occur within five (5) calendar days of sampling.
 - For example: If a sample is taken on Saturday and has passing PST level results, then the sampled area is open for geoduck harvesting through Thursday until 11:59 PM (five days from the sample collection date) based on the ADF&G Southeast Alaska Commercial Geoduck Fishery Announcement.

For state-managed harvest subareas in the Sitka area:

- Sampling occurs on Saturday, Sunday or Monday.
- Harvest must occur within seven (7) calendar days of sampling.
 - For example: If a sample is taken on Saturday and has passing PST level results, then ADF&G will open the sampled area for geoduck harvesting through Saturday until 11:59 PM (seven days from the sample collection date) based on the ADF&G Southeast Alaska Commercial Geoduck Fishery Announcement.

For aquaculture and the Annette Island fishery:

- The sampler notifies ADEC (FSS and the Environmental Health Laboratory) at least two (2) business days before anticipated sampling.
- Harvest must occur within five (5) days of sampling.

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

Sample Collection

In accordance with this plan, applicable Letters of Understanding (LOU), 18 AAC 34, NSSP-MO, and the ADEC 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 geoducks 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.

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. ADEC 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 an ADEC observer is on board. ADEC 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 ADEC 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 an ADEC observer is on board a sampling vessel, then the State is responsible for all appropriate insurance and providing 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 (LOU), 18 AAC 34, NSSP-MO, and the ADEC Environmental Health Laboratory (EHL) Laboratory Submission Manual may not be analyzed for regulatory purposes and the area cannot be open for live sale harvest³.

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 (ADEC) for review.

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

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, ADEC 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 ADEC 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, and/or other measures that ADEC determines allow the Department to reliably determine that changing a subarea's status from closed to open is protective of the public's health.

For a subarea from which six consecutive samples results show PST levels at or above 180 µg/100 gm tissue, ADEC will require that sample collection be suspended for at least two weeks. Sampling may resume after the two week suspension has concluded.

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 (at or above the regulatory limit of 80µg/100g), firms that are allowed under their permit to ship or sell geoduck must:

- Divert and label product as "Restricted Use" for further processing by a permitted Shucker-Packer (SP) permitted facility prior to distribution⁴,
- OR-
- Destroy all product that has not been distributed,
- AND;**
- Initiate recall of product that has already been distributed.

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

⁴ Restricted use shellstock is identified with a tag indicating that the shellstock is intended for further processing prior to distribution to retail or food service. Dealer must indicate restricted use as a CCP on the firm's HACCP plan, reference NSSP MO Chapter XIII.01 D.

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 ADEC 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, ADEC 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.