

County: Clallam
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DELIVERABLE FOR TASK NO: 3

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Task 3 - Shellfish Sampling for Paralytic Shellfish Poisoning (PSP)

During the first half of this Fiscal year (July 1, 2010 to December 31, 2010), the Clallam MRC continued a PSP shellfish-monitoring program on the western Straits portion of Clallam County. Following Washington State Department of Health Office of Food Safety and Shellfish protocols (see Appendix A), this sampling program has resulted in the opening of more than 30 miles of beachfront previously closed by a blanket State regulation that typically started in April and extended into October of each year. Based on over eight years of sampling data, these beaches now remain open to harvest well into the summer months, depending on sample results. Monitoring efforts are ongoing. The goal of this task is to show a net reduction in shellfish harvest areas closed due to PSP contamination.

Beaches being sampled include Pysht River mouth (Pillar Point County Park), Deep Creek (beach eastward of the mouth), and Freshwater Bay (at the boat ramp). Clallam Bay (Slip Point) is sampled by the Makah Tribe. Mussels were the most commonly used monitoring species (sampled at Slip Point and Freshwater Bay), but other species are sampled at Pillar Point and Deep Creek, typically littleneck clams or butter clams due to a lack of mussel beds at these locations. Butter clams are also occasionally sampled at Freshwater Bay in order to determine a relation of PSP levels between butter clams and mussels locally.

Samples are collected during the summer typically every 2 weeks (at periods of extreme tide fluctuations), when volunteers are available. Sampling during the winter months are more sporadic due to the lower levels of PSP present in the organisms and the difficulty of acquiring samples when low tide events occur in the middle of the night. Samples of clams and/or mussels are collected by hand or small trowel at each site, bagged and transported to the Elwha Fisheries office. Samples are then labeled and packed into shipping containers with a frozen ice pack, and delivered to UPS for overnight delivery to the Washington Department of Health's Biotoxin Lab in North Seattle.

Results for the July 1, 2010 through December 31, 2010 time period are summarized in table 1. The majority of samples during the summer and fall months exceeded the action level for beach closure of 80 micrograms. This level was exceeded the first week of June 2010. Rising PSP levels were detected during the last week of May in samples from the Western Strait and North Coast (ranges from 304 to 3601 were detected on June 1st, 2010). Additional mussel samples from Freshwater Bay and Ediz Hook were sent in on June 9th, with the results of 3438 and 1966, respectively. The DOH closed all beaches west of Point Wilson due to these alarmingly high PSP levels; all intertidal harvest was suspended throughout the summer months. Safe limits were not reached until October 2010, and then exceeded the limit again in early December 2010.

Sampling was conducted by one volunteer, usually taking three hours per sampling day. Total volunteer time was 5 sample days X 3 hours = 15 hours.

Table 1. Summary of PSP sampling efforts, 2nd Half Calendar Year 2010.

Date	Site	Species	Result	Collector
07/28/2010	Pillar Point	Butter Clam	280	Clallam MRC
07/28/2010	Deep Creek	Butter Clam	98	Clallam MRC
07/28/2010	Deep Creek	Littleneck Clam	<38	Clallam MRC
07/26/2010	FW Bay	California Mussel	1331	Clallam MRC
09/08/2010	Pillar Point	Butter Clam	42	Clallam MRC
09/08/2010	Deep Creek	Butter Clam	45	Clallam MRC
09/08/2010	FW Bay	California Mussel	159	Clallam MRC
10/09/2010	Deep Creek	Butter Clam	NTD	Clallam MRC
10/09/2010	FW Bay	California Mussel	49	Clallam MRC
11/10/2010	Deep Creek	Butter Clam	38	Clallam MRC
11/10/2010	FW Bay	California Mussel	<38	Clallam MRC
12/10/2010	Pillar Point	Butter Clam	97	Clallam MRC
12/10/2010	Deep Creek	Butter Clam	92	Clallam MRC

Action level for beach closures occurs at 80 micrograms of PSP.

Appendix A

OFFICE OF FOOD SAFETY AND SHELLFISH PROGRAMS

Post Office Box 47824
Olympia, Washington 98504-7824

MARINE BIOTOXIN MONITORING PROGRAM

Sample Collection

- * Samples must yield at least 120 grams of meat for processing (approx. 4 oz.). Shellfish must be in the shell and fresh.

- * Sample size is according to the following table:

<u>Species</u>	<u>Number to Submit</u>
Oysters	8 - 10
Butter Clams	8 - 10
Littleneck, Manila clams	30 - 40
Horse Clams	3 - 4
Eastern Softshells	10 - 12
Blue Mussels	75 -100
California Mussels	5 - 6
Rock Scallops	2 - 3
Pink Scallops	30 - 40
Geoduck	3 - 6
Crab	6

- * These numbers are based on average-size specimens.
- * Do not submit specimens with cracked or crushed shells.
- * Place shellfish in a waterproof plastic bag.
- * Do not mix species (only one species per bag).

Handling

- * Do not hold shellfish in seawater or freshwater at any time after collection, however, rinsing with seawater or freshwater to remove sediment is recommended.
- * If samples must be held prior to shipment, keep refrigerated. Putrid or decomposed samples will not be processed.

Data Forms

- * Complete the form using black ink.
- * Fill in dates collected and submitted, species and number of organisms.

Shipment

- * Place samples in a sealable container, such as a cardboard box. Paraffin cardboard buckets are available upon request from the Office of Food Safety and Shellfish Programs at (360) 236-3330.
- * Ice packs should be used to refrigerate samples during shipment.
- * Include one Shellfish Biotoxin Sample Form for each sample submitted. Place form in a separate waterproof plastic bag.
- * Submit samples as early in the week as possible. Samples can be shipped UPS, FED EX or Greyhound. Call the Office of Food Safety and Shellfish Programs at (360) 236-3330 for other transportation arrangements.
- * All PSP samples must be sent to the following address:

Washington State Department of Health
Public Health Laboratory
Attention: Biotoxin Lab
1610 NE 150th Street
Shoreline, WA 98155