

Vaughn Bay

Annual Shellfish Growing Area Review



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Area: Vaughn Bay

Year Ending: December 31, 2023

Classification: Approved, Conditionally Approved, Prohibited

Activities in the Growing Area in 2023

The growing area was sampled 12 times in accordance with the National Shellfish Sanitation Program (NSSP) Systematic Random Sampling criteria. All samples in the Conditionally Approved area were collected during the Open status. The Conditionally Approved area was closed four times for a total of 20 days due to rainfall (≥ 1 inch in 24-hours). The whole growing area was closed once for seven days due to excessive rainfall (≥ 3 inches in 24-hours).

The Tacoma-Pierce County Health Department, Pierce County Surface Water Management, and Pierce Conservation District continued pollution identification and correction activities in the watershed. The Vaughn Bay Shellfish Protection District continues to meet quarterly.

Analytical Results of Water Samples

Table 1 summarizes the most recent 30 samples collected from each of the sampling stations. Five of these samples were collected during Closed status. All stations meet the NSSP standard for an Approved classification. Additional data needs to be collected following rainfall greater than 1 inch to appropriately evaluate the classification of the area.

Change in Actual Pollution Sources that Impact the Growing Area

We currently have no information indicating the area has any new sources of pollution.

Classification Status

- Well within the classification standards
- Meets standards, but threatened with downgrade in classification
- Fails to meet current classification standards

Remarks and Recommendations

Table 1 shows that all stations meet the NSSP water quality standard. Due to the stations in the Prohibited area meeting the NSSP water quality standard, the classification should be re-evaluated. Because limited rainfall-related sampling data was collected from 2020 through 2022, a special study that includes rainfall event sampling (exceeding 1-inch in 24 hours) should be completed prior to a classification change. The Department should continue to collaborate with Pierce County to identify and correct sources of pollution in the Vaughn Bay watershed.

Management Plan Evaluation

1. Have all parties involved complied with the conditions of the management planYes
2. Has reporting been adequate to manage the conditional area.....Yes
3. Does the area consistently meet approved area criteria when it is open for harvest Yes
4. Has a field inspection of critical pollution sources been conducted Yes

TABLE 1. Summary of Marine Water Data (SRS) for the Vaughn Bay Growing Area

Sampling Event Type: Regulatory

Maximum Number of Samples: 30

Tides Included: All

| Station Number | Classification | Date Range | Range (FC/100mL) | Geomean (FC/100mL) | Est. 90 th Percentile (FC/100mL) | Meets Standard |
|----------------|------------------------|------------------------|------------------|--------------------|---------------------------------------------|----------------|
| 35 | Approved | 7/29/2021 - 12/13/2023 | 1.7 - 13.0 | 2.2 | 4.6 | Y |
| 607 | Approved | 7/29/2021 - 12/13/2023 | 1.7 - 17.0 | 2.2 | 4.1 | Y |
| 612 | Approved | 7/29/2021 - 12/13/2023 | 1.7 - 11.0 | 2.2 | 4.3 | Y |
| 613 | Approved | 7/29/2021 - 12/13/2023 | 1.7 - 540.0 | 3.2 | 17.2 | Y |
| 608 | Conditionally Approved | 7/29/2021 - 12/13/2023 | 1.7 - 33.0 | 3.5 | 11.8 | Y |
| 633 | Conditionally Approved | 7/29/2021 - 12/13/2023 | 1.7 - 23.0 | 3.3 | 9.7 | Y |
| 745 | Conditionally Approved | 7/29/2021 - 12/13/2023 | 1.7 - 130.0 | 4.4 | 18.9 | Y |
| 609 | Prohibited | 7/29/2021 - 12/13/2023 | 1.7 - 110.0 | 6.4 | 34.5 | Y |
| 610 | Prohibited | 7/29/2021 - 12/13/2023 | 1.7 - 49.0 | 4.4 | 15.9 | Y |
| 611 | Prohibited | 7/29/2021 - 12/13/2023 | 1.7 - 22.0 | 2.8 | 7.4 | Y |
| 650 | Prohibited | 7/29/2021 - 12/13/2023 | 1.7 - 46.0 | 4.1 | 16.2 | Y |

The standard for approved shellfish growing waters is fecal coliform geometric mean not greater than 14 organisms/ 100 mL with an estimated 90th percentile not greater than 43 organisms/ 100 mL. The above table shows bacteriological results in relation to program standards.

MAP 1. Vaughn Bay Growing Area

