

Portage Bay

Annual Shellfish Growing Area Review



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Area: Portage Bay

Year Ending: December 31, 2021

Classification: Approved, Conditionally Approved, Prohibited

Activities in the Growing Area in 2021

The growing area was sampled 10 times in accordance with the National Shellfish Sanitation Program (NSSP) Systematic Random Sampling method. Nine samples were collected during Open status. The Conditionally Approved area was closed from October through December. The entire growing area was closed for 34 days due to flooding of the Nooksack River and sewage discharges.

The Whatcom Clean Water Program, Whatcom County Public Works, and Whatcom Conservation District received National Estuary Program (NEP) funding for coordinating and implementing a pollution identification and control program in the watershed. Washington State Department of Agriculture (WSDA) and Washington State Department of Ecology (Ecology) received NEP funding for enhanced water compliance monitoring and referral and technical assistance, with WSDA focusing on dairies and Ecology addressing nonpoint pollution stemming from nondairy agriculture. The Portage Bay Shellfish Protection District continued quarterly meetings.

Analytical Results of Water Samples

Table 1 summarizes the results of the last 30 samples collected from the area. It includes samples collected when the Conditionally Approved area was in Closed status. This summary shows that all stations meet the NSSP water quality standard for Approved classification with all data; except Station 50. Table 2 shows the last 30 samples collected from the Conditionally Approved stations during Open status (January – September).

Stations 50, 52, and 271 are categorized as Threatened with respective estimated 90th percentiles of 41.4 FC/100mL, 28.5 FC/100mL, and 28.9 FC/100mL during Open status. Stations 55, 51, and 272 are categorized as Concerned with respective estimated 90th percentiles of 20.0 FC/100mL, 26.0 FC/100mL (Open status), and 24.1 FC/100mL (Open status). Table 3 includes the individual sample results for Station 50.

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 some concerns
- Meets standards, but threatened with downgrade in classification
- Fails to meet current classification standards

Remarks and Recommendations

All stations meet the applicable NSSP water quality standard, however concerns exist about the current condition for the Conditionally Approved area. The Condition should be re-evaluated for managing the Conditionally Approved area.

Management Plan Evaluation

- 1. Have all parties involved complied with the conditions of the management plan Yes
- 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 Portage 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
53	Approved	3/26/2019 - 10/12/2021	1.7 - 79.0	3.3	13.7	Y
54	Approved	3/26/2019 - 10/12/2021	1.7 - 79.0	3.5	16.2	Y
55	Approved	3/26/2019 - 10/12/2021	1.7 - 79.0	3.8	20.0	Y
57	Approved	3/26/2019 - 10/12/2021	1.7 - 79.0	3.5	17.2	Y
58	Approved	3/26/2019 - 10/12/2021	1.7 - 110.0	3.7	18.6	Y
49	Conditionally Approved	3/26/2019 - 10/12/2021	1.7 - 110.0	4.5	24.3	Y
50	Conditionally Approved	3/26/2019 - 10/12/2021	1.7 - 220.0	7.0	50.1	N
51	Conditionally Approved	3/26/2019 - 10/12/2021	1.7 - 170.0	6.6	42.2	Y
52	Conditionally Approved	3/26/2019 - 10/12/2021	1.7 - 130.0	5.8	35.4	Y
271	Conditionally Approved	3/26/2019 - 10/12/2021	1.7 - 130.0	6.3	40.7	Y
272	Conditionally Approved	3/26/2019 - 10/12/2021	1.7 - 49.0	4.8	22.3	Y
48	Prohibited	3/26/2019 - 10/12/2021	1.7 - 79.0	3.1	13.0	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

TABLE 2. Summary of Conditionally Approved Marine Water Data (SRS) during Open Status for the Portage Bay Growing Area

Sampling Event Type: Regulatory

Tides Included: All

Number of Samples: 30

Includes data from the Open period (January through September)

Station Number	Classification	Date Range	Range (FC/100mL)	Geomean (FC/100mL)	Est. 90 th Percentile (FC/100mL)	Meets Standard
49	Conditionally Approved	5/23/2018 - 9/14/2021	1.7 - 49.0	4.1	17.9	Y
50	Conditionally Approved	5/23/2018 - 9/14/2021	1.7 - 220.0	6.8	41.4	Y
51	Conditionally Approved	5/23/2018 - 9/14/2021	1.7 - 120.0	5.4	26.0	Y
52	Conditionally Approved	5/23/2018 - 9/14/2021	1.7 - 130.0	5.2	28.5	Y
271	Conditionally Approved	5/23/2018 - 9/14/2021	1.7 - 110.0	4.6	28.9	Y
272	Conditionally Approved	5/23/2018 - 9/14/2021	1.7 - 79.0	5.2	24.1	Y

The above table shows bacteriological results in relation to NSSP criteria. NSSP standards for approved shellfish growing waters are a fecal coliform geometric mean not greater than 14 organisms/100 mL and an estimated 90th percentile not greater than 43 organisms/100mL.

TABLE 3. Marine Water Quality Summary for Threatened Stations in Portage Bay Growing Area

Station: 50

Classification: Conditionally Approved

Method: SRS

Includes samples collected between the months of January through September

Total Samples: 30 Range (FC/100 mL): 1.7 – 220.0 GeoMean (FC/100 mL): 6.8				Date Range: 05/23/2018 – 09/14/2021 E90th (FC/100 mL): 41.4 Meets Standard: Y		
Sample Date	Event Type	Time	Tide	SWT	Salinity	Fecal Coliform
05/23/2018	Regulatory	11:30	Flood	16	1	9.3
06/11/2018	Regulatory	16:45	Flood	17	5	7.8
07/18/2018	Regulatory	10:39	Ebb	18	25	1.7
08/15/2018	Regulatory	09:01	Ebb	16	25	14.0
09/19/2018	Regulatory	13:04	Flood	15	8	49.0
02/06/2019	Regulatory	10:59	Ebb	3	20	1.7
03/14/2019	Regulatory	10:31	Flood	6	6	7.8
03/26/2019	Regulatory	08:18	Flood	9	28	1.7
04/03/2019	Regulatory	09:33	Ebb	10	22	1.7
05/08/2019	Regulatory	06:55	Flood	13	20	13.0
06/12/2019	Regulatory	13:22	Flood	17	28	1.7
07/16/2019	Regulatory	18:18	Flood	20	22	1.7
08/21/2019	Regulatory	11:06	Ebb	17	25	2.0
09/19/2019	Regulatory	11:31	Ebb	13	8	33.0
01/08/2020	Regulatory	13:01	Flood	7	1	49.0
04/02/2020	Regulatory	09:17	Flood	7	12	4.5
05/12/2020	Regulatory	08:10	Flood	11	1	22.0
06/10/2020	Regulatory	07:29	Flood	12	1	49.0
07/15/2020	Regulatory	13:29	Flood	19	7	1.8
08/05/2020	Regulatory	06:07	Flood	17	17	23.0
09/24/2020	Regulatory	12:27	Flood	15	23	33.0
01/26/2021	Regulatory	12:02	Flood	4	5	11.0
02/09/2021	Regulatory	13:05	Flood	5	22	1.7
03/23/2021	Regulatory	10:00	Ebb	8	25	1.7
04/06/2021	Regulatory	13:06	Flood	9	15	1.7
05/26/2021	Regulatory	17:53	Flood	16	19	1.7
06/02/2021	Regulatory	11:28	Ebb	15	8	4.5
07/13/2021	Regulatory	06:47	Flood	18	15	2.0
08/17/2021	Regulatory	12:30	Flood	17	10	17.0
09/14/2021	Regulatory	11:57	Flood	14	8	220.0

TABLE 3 Continued.

Station: 52

Classification: Conditionally Approved

Method: SRS

Includes samples collected between the months of January through September

Total Samples: 30 Range (FC/100 mL): 1.7 – 130.0 GeoMean (FC/100 mL): 5.2				Date Range: 05/23/2018 – 09/14/2021 E90th (FC/100 mL): 28.5 Meets Standard: Y		
Sample Date	Event Type	Time	Tide	SWT	Salinity	Fecal Coliform
05/23/2018	Regulatory	11:25	Flood	16	7	4.5
06/11/2018	Regulatory	17:29	Flood	17	10	23.0
07/18/2018	Regulatory	10:35	Ebb	17	25	1.7
08/15/2018	Regulatory	09:38	Ebb	16	25	49.0
09/19/2018	Regulatory	12:59	Flood	14	22	2.0
02/06/2019	Regulatory	11:03	Ebb	3	20	1.7
03/14/2019	Regulatory	11:14	Ebb	6	8	6.8
03/26/2019	Regulatory	09:02	Flood	9	28	1.8
04/03/2019	Regulatory	09:29	Ebb	10	26	2.0
05/08/2019	Regulatory	07:30	Ebb	13	24	7.8
06/12/2019	Regulatory	13:17	Flood	16	26	1.7
07/16/2019	Regulatory	17:38	Flood	20	22	1.8
08/21/2019	Regulatory	11:02	Ebb	17	25	23.0
09/19/2019	Regulatory	09:16	Flood	14	19	130.0
01/08/2020	Regulatory	12:57	Flood	7	0	130.0
04/02/2020	Regulatory	08:51	Flood	7	12	4.5
05/12/2020	Regulatory	08:38	Ebb	12	4	23.0
06/10/2020	Regulatory	06:55	Flood	13	6	17.0
07/15/2020	Regulatory	13:25	Flood	19	16	1.7
08/05/2020	Regulatory	06:18	Ebb	16	26	6.8
09/24/2020	Regulatory	12:13	Flood	14	28	2.0
01/26/2021	Regulatory	11:32	Flood	4	8	4.5
02/09/2021	Regulatory	13:01	Flood	5	21	4.5
03/23/2021	Regulatory	10:26	Ebb	8	27	2.0
04/06/2021	Regulatory	13:02	Flood	9	7	2.0
05/26/2021	Regulatory	18:24	Flood	16	18	1.7
06/02/2021	Regulatory	11:48	Ebb	16	16	13.0
07/13/2021	Regulatory	07:25	Ebb	18	21	2.0
08/17/2021	Regulatory	12:26	Flood	17	20	2.0
09/14/2021	Regulatory	11:36	Flood	15	29	2.0

TABLE 3 Continued.

Station: 271

Classification: Conditionally Approved

Method: SRS

Includes samples collected between the months of January through September

Total Samples: 30 Range (FC/100 mL): 1.7 – 110.0 GeoMean (FC/100 mL): 4.6				Date Range: 05/23/2018 – 09/14/2021 E90th (FC/100 mL): 28.9 Meets Standard: Y		
Sample Date	Event Type	Time	Tide	SWT	Salinity	Fecal Coliform
05/23/2018	Regulatory	11:23	Flood	16	2	1.7
06/11/2018	Regulatory	17:12	Flood	17	6	2.0
07/18/2018	Regulatory	10:33	Ebb	17	24	1.7
08/15/2018	Regulatory	09:26	Ebb	16	26	2.0
09/19/2018	Regulatory	12:57	Flood	14	8	79.0
02/06/2019	Regulatory	11:05	Ebb	3	20	1.7
03/14/2019	Regulatory	10:49	Ebb	6	12	1.7
03/26/2019	Regulatory	08:43	Flood	9	28	2.0
04/03/2019	Regulatory	09:27	Ebb	10	24	1.7
05/08/2019	Regulatory	07:22	Ebb	12	28	2.0
06/12/2019	Regulatory	13:15	Flood	17	26	1.7
07/16/2019	Regulatory	17:52	Flood	20	22	1.7
08/21/2019	Regulatory	11:00	Ebb	16	25	2.0
09/19/2019	Regulatory	09:26	Flood	13	13	33.0
01/08/2020	Regulatory	12:55	Flood	7	1	110.0
04/02/2020	Regulatory	09:00	Flood	7	12	4.0
05/12/2020	Regulatory	08:28	Ebb	11	1	79.0
06/10/2020	Regulatory	07:08	Flood	11	1	17.0
07/15/2020	Regulatory	13:22	Flood	18	9	4.5
08/05/2020	Regulatory	06:14	Flood	17	16	2.0
09/24/2020	Regulatory	12:18	Flood	15	22	27.0
01/26/2021	Regulatory	11:43	Flood	4	6	7.8
02/09/2021	Regulatory	12:59	Flood	5	22	1.7
03/23/2021	Regulatory	10:18	Ebb	8	24	1.7
04/06/2021	Regulatory	13:00	Flood	9	10	1.7
05/26/2021	Regulatory	18:13	Flood	15	21	1.7
06/02/2021	Regulatory	11:24	Flood	14	9	2.0
07/13/2021	Regulatory	07:06	Ebb	19	16	4.5
08/17/2021	Regulatory	12:24	Flood	16	8	4.5
09/14/2021	Regulatory	11:24	Flood	15	17	79.0

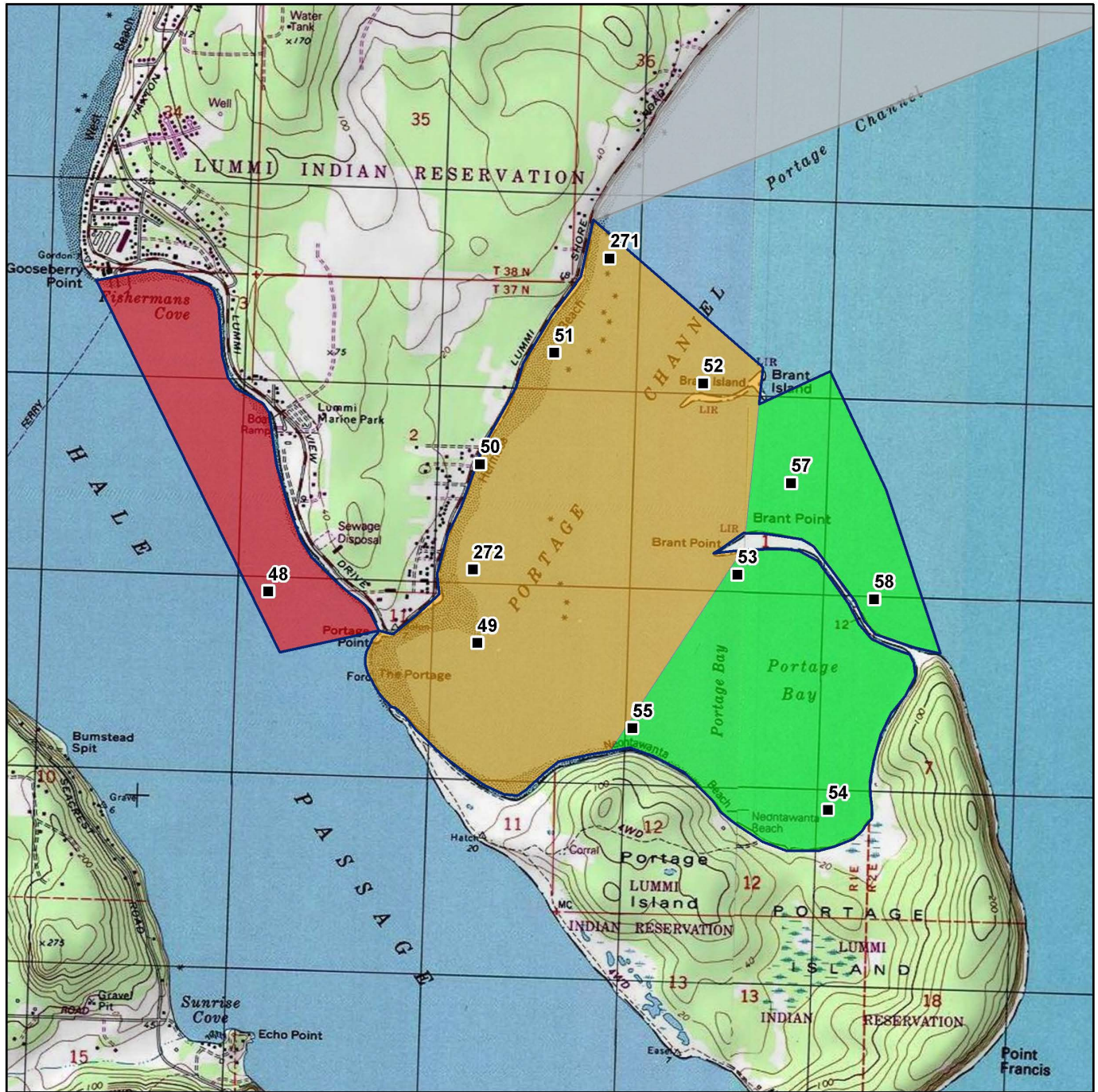
MAP 1. Portage Bay Growing Area

Portage Bay

0 0.75 1.5 Miles



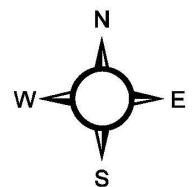
Date Updated: 7/11/2018



Classification

- Approved
- Conditional
- Prohibited
- Restricted
- Unclassified

Sampling Stations



* Some sampling stations are highlighted with grey box for ease of reading.