

North Bay

Annual Shellfish Growing Area Review



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Area: North Bay

Year Ending: December 31, 2021

Classification: Approved, Conditionally Approved, Prohibited

Activities in the Growing Area in 2021

The growing area was sampled a minimum of six times in accordance with National Shellfish Sanitation Program (NSSP) Systematic Random Sampling criteria. Marine stations (1, 2, 11, 12, 871, 548, 575, 9, 549, 550, 869, 870) near Allyn and within the Conditionally Approved and Prohibited areas were sampled 12 times. One set of samples was taken from the Conditionally Approved stations during Closed status. The Conditionally Approved areas were closed six times for a total of 36 days due to rainfall (≥ 1 -inch in 24-hours). A portion of the growing area was closed in January for 21 days due to a sewage spill.

Mason County received EPA National Estuary Program funds to implement pollution identification and correction activities identified in the North Bay pollution closure response plan.

Analytical Results of Water Samples

Table 1 summarizes the results of the last 30 samples collected from the area. This summary shows that all stations in Approved and Conditionally Approved areas pass the NSSP water quality standard; however, the Conditionally Approved portions of the growing area only has two sampling events with rainfall exceeding 1-inch in 24 hours. Before a reclassification can be considered, more data following 1-inch of rain in 24 hours needs to be collected. Stations 1 and 12 in the Approved area are in the Threatened status with respective estimated 90th percentiles of 32.4 FC/100mL and 32.3 FC/100mL. Station 575 in the Conditionally Approved area is also in the Threatened status with an estimated 90th percentile of 32.3 FC/100mL during Open Status. Stations 2, 7, 11, 14, and 548 are in Concerned status.

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

Table 1 shows that all stations meet the NSSP water quality standards for an Approved classification and the area is correctly classified. Because limited rainfall-related sampling data was collected from 2019 through 2021, special studies that include rainfall event sampling (exceeding 1-inch in 24 hours) should be completed prior to a classification change. The Department should continue to collaborate with Mason County to identify and correct sources of pollution in the North Bay watershed.

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 North 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
1	Approved	7/18/2019 - 12/20/2021	1.7 - 130.0	6.1	32.4	Y
2	Approved	7/18/2019 - 12/20/2021	1.7 - 240.0	4.6	23.7	Y
3	Approved	1/18/2017 - 11/30/2021	1.7 - 49.0	3.4	12.1	Y
4	Approved	1/18/2017 - 11/30/2021	1.7 - 79.0	3.1	12.1	Y
5	Approved	1/18/2017 - 11/30/2021	1.7 - 49.0	3.4	11.0	Y
6	Approved	1/18/2017 - 11/30/2021	1.7 - 17.0	2.7	7.1	Y
11	Approved	7/18/2019 - 12/20/2021	1.7 - 130.0	5.9	27.5	Y
12	Approved	7/18/2019 - 12/20/2021	1.7 - 350.0	6.1	32.3	Y
14	Approved	1/18/2017 - 11/30/2021	1.7 - 46.0	5.4	23.9	Y
15	Approved	1/18/2017 - 11/30/2021	1.7 - 33.0	4.3	13.8	Y
16	Approved	1/18/2017 - 11/30/2021	1.7 - 31.0	2.6	6.9	Y
551	Approved	1/18/2017 - 11/30/2021	1.7 - 33.0	2.2	5.7	Y
552	Approved	1/18/2017 - 11/30/2021	1.7 - 23.0	2.4	5.0	Y
553	Approved	1/18/2017 - 11/30/2021	1.7 - 31.0	2.2	4.7	Y
871	Approved	7/18/2019 - 12/20/2021	1.7 - 33.0	3.2	9.4	Y
7	Conditionally Approved	7/18/2019 - 12/20/2021	1.7 - 130.0	6.7	33.0	Y
548	Conditionally Approved	7/18/2019 - 12/20/2021	1.7 - 110.0	5.9	24.6	Y
575	Conditionally Approved	7/18/2019 - 12/20/2021	1.7 - 110.0	6.3	39.0	Y
9	Prohibited	7/18/2019 - 12/20/2021	1.7 - 130.0	5.5	24.9	Y
549	Prohibited	7/18/2019 - 12/20/2021	1.7 - 170.0	5.3	28.7	Y
550	Prohibited	7/18/2019 - 12/20/2021	1.7 - 33.0	3.9	13.1	Y
869	Prohibited	6/24/2019 - 12/20/2021	1.7 - 920.0	15.6	100.7	N
870	Prohibited	7/18/2019 - 12/20/2021	1.7 - 79.0	4.3	16.8	Y
762	Unclassified	6/24/2019 - 12/20/2021	1.7 - 920.0	9.3	63.3	N

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) in Open Status North Bay Growing Area

Sampling Event Type: Regulatory

Maximum Number of Samples: 30

Tides Included: All

Includes data for rainfall amounts:00-0.99” on days 0 – 4 previous to the sampling event.

Station Number	Classification	Date Range	Range (FC/100mL)	Geomean (FC/100mL)	Est. 90 th Percentile (FC/100mL)	Meets Standard
7	Conditionally Approved	5/8/2019 - 12/20/2021	1.7 - 130.0	5.7	26.8	Y
548	Conditionally Approved	5/8/2019 - 12/20/2021	1.7 - 110.0	5.2	21.4	Y
575	Conditionally Approved	5/8/2019 - 12/20/2021	1.7 - 110.0	5.5	32.3	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 of the Threatened Stations in North Bay Growing Area

Station: 1

Classification: Approved

Method: SRS

Total Samples: 30 Range (FC/100 mL): 1.7 – 130.0 GeoMean (FC/100 mL): 6.1				Date Range: 07/18/2019 – 12/20/2021 E90th (FC/100 mL): 32.4 Meets Standard: Y		
Sample Date	Event Type	Time	Tide	SWT	Salinity	Fecal Coliform
07/18/2019	Regulatory	08:36	Ebb	19	25	33.0
08/06/2019	Regulatory	10:19	Flood	20	28	4.5
09/30/2019	Regulatory	09:12	Ebb	14	31	4.0
10/07/2019	Regulatory	12:44	Flood	15	29	7.8
11/05/2019	Regulatory	09:18	Flood	11	31	6.8
12/03/2019	Regulatory	10:20	Flood	9	29	1.7
01/15/2020	Regulatory	10:06	Ebb	7	24	2.0
02/12/2020	Regulatory	08:51	Ebb	8	25	2.0
03/02/2020	Regulatory	11:28	Ebb	9	25	1.7
04/08/2020	Regulatory	08:55	Ebb	10	29	1.7
05/12/2020	Regulatory	10:46	Ebb	14	24	6.8
06/09/2020	Regulatory	08:11	Flood	15	26	130.0
07/09/2020	Regulatory	09:43	Ebb	18	28	1.7
08/05/2020	Regulatory	08:11	Ebb	21	29	13.0
09/09/2020	Regulatory	10:21	Flood	15	29	2.0
10/13/2020	Regulatory	13:11	Flood	15	28	33.0
11/03/2020	Regulatory	09:55	Ebb	13	29	46.0
12/02/2020	Regulatory	09:26	Ebb	8	30	1.7
01/04/2021	Regulatory	09:30	Flood	8	3	17.0
02/23/2021	Regulatory	10:26	Ebb	9	17	2.0
03/02/2021	Regulatory	09:41	Ebb	9	25	1.7
04/20/2021	Regulatory	10:27	Flood	15	20	49.0
05/19/2021	Regulatory	10:16	Flood	15	26	22.0
06/17/2021	Regulatory	10:45	Flood	18	27	2.0
07/29/2021	Regulatory	09:49	Flood	21	28	6.8
08/31/2021	Regulatory	12:48	Flood	19	29	6.8
09/09/2021	Regulatory	09:29	Ebb	18	25	11.0
10/25/2021	Regulatory	10:26	Ebb	14	29	2.0
11/30/2021	Regulatory	12:10	Flood	12	11	31.0
12/20/2021	Regulatory	10:21	Ebb	9	27	1.7

TABLE 3. Continued

Station: 12

Classification: Approved

Method: SRS

Total Samples: 30 Range (FC/100 mL): 1.7 – 350.0 GeoMean (FC/100 mL): 6.1				Date Range: 07/18/2019 – 12/20/2021 E90th (FC/100 mL): 32.3 Meets Standard: Y		
Sample Date	Event Type	Time	Tide	SWT	Salinity	Fecal Coliform
07/18/2019	Regulatory	08:41	Ebb	19	24	49.0
08/06/2019	Regulatory	10:25	Flood	20	26	23.0
09/30/2019	Regulatory	09:18	Ebb	14	30	13.0
10/07/2019	Regulatory	12:40	Flood	15	29	6.8
11/05/2019	Regulatory	09:26	Flood	11	30	1.7
12/03/2019	Regulatory	10:25	Flood	9	28	2.0
01/15/2020	Regulatory	10:10	Ebb	6	21	2.0
02/12/2020	Regulatory	08:55	Ebb	8	23	4.5
03/02/2020	Regulatory	11:32	Ebb	8	24	1.8
04/08/2020	Regulatory	09:01	Ebb	9	29	1.7
05/12/2020	Regulatory	10:51	Ebb	14	26	11.0
06/09/2020	Regulatory	08:16	Flood	15	21	33.0
07/09/2020	Regulatory	09:48	Ebb	18	27	1.7
08/05/2020	Regulatory	08:15	Ebb	21	28	7.8
09/09/2020	Regulatory	10:26	Flood	15	26	4.5
10/13/2020	Regulatory	13:16	Flood	15	28	350.0
11/03/2020	Regulatory	10:02	Ebb	13	29	23.0
12/02/2020	Regulatory	09:30	Ebb	8	28	1.7
01/04/2021	Regulatory	09:35	Flood	8	3	23.0
02/23/2021	Regulatory	10:31	Ebb	8	10	4.5
03/02/2021	Regulatory	09:46	Ebb	9	22	1.7
04/20/2021	Regulatory	10:33	Flood	16	24	7.8
05/19/2021	Regulatory	10:23	Flood	15	27	2.0
06/17/2021	Regulatory	10:50	Flood	18	27	2.0
07/29/2021	Regulatory	09:55	Flood	21	28	7.8
08/31/2021	Regulatory	12:55	Flood	19	29	2.0
09/09/2021	Regulatory	09:33	Ebb	18	30	7.8
10/25/2021	Regulatory	10:32	Ebb	14	29	4.0
11/30/2021	Regulatory	12:17	Flood	12	5	23.0
12/20/2021	Regulatory	10:27	Ebb	9	23	2.0

TABLE 3. Continued

Station: 575

Classification: Conditionally Approved

Method: SRS

Includes data for rainfall amounts 0.00-0.99 on days 0-4 previous to the sampling event

Total Samples: 30 Range (FC/100 mL): 1.7 – 110.0 GeoMean (FC/100 mL): 5.5				Date Range: 05/08/2019 – 12/20/2021 E90th (FC/100 mL): 32.3 Meets Standard: Y		
Sample Date	Event Type	Time	Tide	SWT	Salinity	Fecal Coliform
05/08/2019	Regulatory	09:43	Ebb	16	21	6.8
06/24/2019	Regulatory	10:14	Flood	18	21	2.0
07/18/2019	Regulatory	08:42	Ebb	19	24	33.0
08/06/2019	Regulatory	10:27	Flood	20	26	110.0
09/30/2019	Regulatory	09:20	Ebb	14	31	9.3
10/07/2019	Regulatory	12:36	Flood	15	29	1.7
11/05/2019	Regulatory	09:28	Flood	11	29	4.5
12/03/2019	Regulatory	10:26	Flood	8	27	2.0
01/15/2020	Regulatory	10:12	Ebb	6	13	1.7
02/12/2020	Regulatory	08:57	Ebb	8	21	2.0
03/02/2020	Regulatory	11:33	Ebb	8	21	1.7
04/08/2020	Regulatory	09:03	Ebb	9	29	1.7
05/12/2020	Regulatory	10:55	Ebb	14	26	2.0
06/09/2020	Regulatory	08:17	Flood	15	18	70.0
07/09/2020	Regulatory	09:50	Ebb	18	25	4.5
08/05/2020	Regulatory	08:16	Ebb	21	27	13.0
09/09/2020	Regulatory	10:28	Flood	15	28	2.0
11/03/2020	Regulatory	10:04	Ebb	13	28	4.5
12/02/2020	Regulatory	09:31	Ebb	8	30	1.7
02/23/2021	Regulatory	10:33	Ebb	8	5	70.0
03/02/2021	Regulatory	09:48	Ebb	9	20	2.0
04/20/2021	Regulatory	10:36	Flood	15	24	1.7
05/19/2021	Regulatory	10:25	Flood	15	27	2.0
06/17/2021	Regulatory	10:52	Flood	18	28	1.7
07/29/2021	Regulatory	09:58	Flood	21	28	13.0
08/31/2021	Regulatory	12:57	Flood	19	29	1.7
09/09/2021	Regulatory	09:35	Ebb	18	29	79.0
10/25/2021	Regulatory	10:36	Ebb	13	27	7.8
11/30/2021	Regulatory	12:19	Flood	12	3	33.0
12/20/2021	Regulatory	10:29	Ebb	9	23	4.5

MAP 1. North Bay Growing Area

