Drayton Harbor

Annual Shellfish Growing Area Review

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Area: Drayton Harbor

Year Ending: December 31, 2021

Classification: Approved, Conditionally Approved, Prohibited

Activities in the Growing Area in 2021

The growing area was sampled ten times in accordance with National Shellfish Sanitation Program (NSSP) Systematic Random Sampling criteria. Nine of the samples were collected during the Open status. The Conditionally Approved portion was closed once for a total of 61 days due to season (closed November 1 to January 31). The area was closed for 34 days from November 15 to December 19, 2021 due to excessive rainfall and two untreated sewage discharges on November 15-16 and November 28.

Station 428 was added in June 2021 to monitor the water quality at the confluence of California and Dakota creeks. In August, 695 acres were reclassified from Approved to Conditionally Approved including Station 428, and 450 acres were changed from unclassified to Prohibited including stations 378 and 379, due to poor water quality. The new Conditionally Approved area is closed to harvest from November 1 through January 31 of each year.

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 Drayton Harbor Shellfish Protection District continued quarterly meetings.

Analytical Results of Water Samples

Table 1 summarizes the most recent 30 samples collected from each of the sampling stations. All stations in the Approved area meet NSSP standards for an Approved classification. Stations 378 and 379, which monitor the status of the Conditionally Approved area, fail the Approved standard with all data. Table 2 shows the last 30 samples collected from these stations during Open status (February – October) and show that the condition is appropriate for the area.

Stations 6 and 413 are Threatened with estimated 90th percentiles of 36.2 FC/100mL and 38.2 FC/100mL, respectively. Station 4 is Concerned with an estimated 90th percentile of 25.0 FC/100mL. Table 3 includes the last 30 sample results for Stations 6 and 413.

Change in Actual Pollution Sources that Impact the Growing Area

We currently have no information indicating that the area has 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 and the area is correctly classified.

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 Drayton Harbor 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. 90th Percentile (FC/100mL)	Meets Standard
3	Approved	2/6/2019 - 10/12/2021	1.7 - 33.0	3.8	15.7	Yes
4	Approved	3/12/2019 - 10/12/2021	1.7 - 110.0	5.0	25.0	Yes
5	Approved	3/12/2019 - 10/12/2021	1.7 - 49.0	4.0	16.0	Yes
6	Approved	3/12/2019 - 10/12/2021	1.7 - 350.0	5.4	36.2	Yes
12	Approved	3/12/2019 - 10/12/2021	1.7 - 130.0	3.0	12.8	Yes
313	Approved	3/12/2019 - 10/12/2021	1.7 - 33.0	3.5	11.8	Yes
314	Approved	3/12/2019 - 10/12/2021	1.7 - 70.0	3.6	15.1	Yes
315	Approved	3/12/2019 - 10/12/2021	1.7 - 130.0	4.1	18.0	Yes
428	Conditionally Approved	6/2/2021 - 10/12/2021	1.7 - 4.5	2.2	4.0	*N/A
8	Prohibited	3/12/2019 - 10/12/2021	1.7 - 920.0	12.4	96.6	No
11	Prohibited	3/12/2019 - 10/12/2021	1.7 - 280.0	3.9	19.2	Yes
15	Prohibited	3/12/2019 - 10/12/2021	1.7 - 1600.0	14.9	151.0	No
378	Prohibited	3/12/2019 - 10/12/2021	1.7 - 350.0	5.8	44.1	No
379	Prohibited	3/12/2019 - 10/12/2021	1.7 - 240.0	7.3	62.3	No
413	Prohibited	2/6/2019 - 10/12/2021	1.7 - 220.0	6.2	38.3	Yes

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.

*SRS criteria require a minimum of 30 samples from each station.

TABLE 2. Summary of Conditionally Approved Marine Water Data (SRS) during Open Status in the Drayton Harbor Growing Area

Sampling Event Type: Regulatory

Maximum Number of Samples: 30

Tides Included: All

Includes data from the Open period (February through October).

Station Number	Classification	Date Range	Range (FC/100mL)	Geomean (FC/100mL)	Est. 90th Percentile (FC/100mL)	Meets Standard
428	Conditionally Approved	6/2/2021 - 10/12/2021	1.7 - 4.5	2.2	4.0	*N/A
378	Prohibited	6/19/2018 - 10/12/2021	1.7 - 33.0	3.1	8.3	Yes
379	Prohibited	6/19/2018 - 10/12/2021	1.7 - 64.0	4.1	18.3	Yes

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.

*SRS criteria require a minimum of 30 samples from each station.

TABLE 3. Marine Water Quality Summary for the Threatened Stations in Drayton Harbor

Station: 6

Classification: Approved

Method: SRS

Total Samples: 30 **Range (FC/100 mL): 1.7 – 350.0** **GeoMean (FC/100 mL): 5.4**			**Date Range: 03/12/2019 – 10/12/2021** **E90th (FC/100 mL): 36.2** **Meets Standard: Yes**			
Sample Date	Event Type	Time	Tide	SWT	Salinity	Fecal Coliform
03/12/2019	Regulatory	09:32	Flood	5	29	4.5
04/03/2019	Regulatory	12:47	Flood	12	30	1.7
05/08/2019	Regulatory	08:18	Ebb	16	28	2.0
06/12/2019	Regulatory	14:50	Flood	19	31	1.7
07/23/2019	Regulatory	09:44	Flood	17	23	1.7
08/21/2019	Regulatory	14:10	Ebb	19	22	1.7
09/18/2019	Regulatory	08:30	Flood	14	28	23.0
10/23/2019	Regulatory	13:45	Flood	11	30	2.0
11/14/2019	Regulatory	08:34	Ebb	9	26	17.0
12/11/2019	Regulatory	13:30	Flood	9	29	49.0
01/08/2020	Regulatory	14:42	Ebb	8	28	33.0
02/13/2020	Regulatory	09:04	Flood	8	29	17.0
04/27/2020	Regulatory	08:39	Ebb	12	29	2.0
06/24/2020	Regulatory	08:35	Ebb	18	26	2.0
07/15/2020	Regulatory	15:11	Flood	19	12	1.7
08/06/2020	Regulatory	08:21	Ebb	18	25	1.7
09/23/2020	Regulatory	11:34	Flood	13	31	49.0
10/21/2020	Regulatory	11:06	Flood	12	30	4.5
11/18/2020	Regulatory	15:16	Flood	10	28	22.0
12/09/2020	Regulatory	10:49	Flood	9	20	350.0
01/06/2021	Regulatory	10:22	Flood	7	19	94.0
02/09/2021	Regulatory	14:37	Ebb	7	28	4.0
03/03/2021	Regulatory	08:51	Ebb	7	28	4.0
04/06/2021	Regulatory	14:48	Ebb	10	30	1.7
05/04/2021	Regulatory	10:22	Flood	13	29	2.0
06/02/2021	Regulatory	13:19	Ebb	18	30	1.7
07/15/2021	Regulatory	08:50	Flood	18	22	4.0
08/17/2021	Regulatory	14:07	Flood	18	26	2.0
09/23/2021	Regulatory	08:30	Ebb	14	30	1.7
10/12/2021	Regulatory	14:59	Ebb	11	31	2.0

TABLE 3. Continued

Station: 413

Classification: Prohibited

Method: SRS

Total Samples: 30 **Range (FC/100 mL): 1.7 – 220.0** **GeoMean (FC/100 mL): 6.2**			**Date Range: 02/06/2019 – 10/12/2021** **E90th (FC/100 mL): 38.3** **Meets Standard: Yes**			
Sample Date	Event Type	Time	Tide	SWT	Salinity	Fecal Coliform
02/06/2019	Regulatory	13:41	Flood	5	26	2.0
03/12/2019	Regulatory	09:29	Flood	5	28	11.0
04/03/2019	Regulatory	12:46	Flood	12	30	1.7
05/08/2019	Regulatory	08:15	Ebb	16	28	6.8
06/12/2019	Regulatory	14:48	Flood	19	31	1.7
07/23/2019	Regulatory	09:43	Flood	17	23	1.7
08/21/2019	Regulatory	14:08	Ebb	18	22	4.0
09/18/2019	Regulatory	08:25	Flood	14	28	14.0
10/23/2019	Regulatory	13:44	Flood	11	30	2.0
11/14/2019	Regulatory	08:30	Ebb	10	28	4.5
12/11/2019	Regulatory	13:29	Flood	9	29	49.0
01/08/2020	Regulatory	14:41	Ebb	8	26	79.0
02/13/2020	Regulatory	09:01	Flood	8	29	33.0
04/27/2020	Regulatory	08:35	Ebb	12	29	2.0
06/24/2020	Regulatory	08:32	Ebb	18	26	4.5
07/15/2020	Regulatory	15:10	Flood	19	12	2.0
08/06/2020	Regulatory	08:18	Ebb	18	25	4.5
09/23/2020	Regulatory	11:32	Flood	13	31	49.0
10/21/2020	Regulatory	11:02	Flood	12	30	2.0
11/18/2020	Regulatory	15:15	Flood	10	28	13.0
12/09/2020	Regulatory	10:46	Flood	8	19	220.0
01/06/2021	Regulatory	10:17	Flood	7	20	79.0
03/03/2021	Regulatory	08:45	Ebb	7	28	11.0
04/06/2021	Regulatory	14:47	Ebb	10	30	1.7
05/04/2021	Regulatory	10:19	Flood	13	29	1.8
06/02/2021	Regulatory	13:17	Ebb	17	30	1.7
07/15/2021	Regulatory	08:47	Flood	18	22	7.8
08/17/2021	Regulatory	14:06	Flood	18	26	1.7
09/23/2021	Regulatory	08:28	Ebb	14	29	2.0
10/12/2021	Regulatory	14:56	Ebb	11	31	4.0

MAP 1: Drayton Harbor Growing Area