Quilcene Bay

Annual Shellfish Growing Area Review

Prepared By: Michael Friese

Area: Quilcene 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. The Conditionally Approved portion of the growing area was closed to harvest from May 1 through September 30.

Jefferson County Environmental Health has been issuing on-site septic system operation and maintenance rebates through the Hood Canal Pollution Identification and Correction (PIC) program. They also received EPA National Estuary Program funds for on-site septic system repair, replacement, and decommissioning/abatement in areas with potential to affect the growing area. Jefferson County continues to work to improve water quality in shellfish growing areas through PIC program efforts.

Analytical Results of Water Samples

Table 1 summarizes the 30 most recent samples collected from each of the sampling stations. This summary shows that all stations pass the NSSP water quality standard. Station 322 has 22 samples. Station 123 is in Concerned status with an estimated 90th percentile of 22.7 FC/100 mL. Stations 114 and 116 are in Threatened status, with estimated 90th percentiles of 34.8 and 35.9 FC/100 mL respectively. Table 2 includes individual sample results from stations 114 and 116.

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

Table 1 shows that all stations meet the NSSP water quality standards for an Approved classification 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 Quilcene 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. 90th Percentile (FC/100mL)	Meets Standard
114	Approved	4/17/2017 - 12/13/2021	1.7 - 1600.0	4.9	34.8	Y
115	Approved	4/17/2017 - 12/13/2021	1.7 - 49.0	3.4	12.5	Y
116	Approved	4/17/2017 - 12/13/2021	1.7 - 1600.0	4.9	35.9	Y
117	Approved	4/17/2017 - 12/13/2021	1.7 - 170.0	2.6	8.9	Y
118	Approved	4/17/2017 - 12/13/2021	1.7 - 170.0	2.7	8.7	Y
119	Approved	4/17/2017 - 12/13/2021	1.7 - 350.0	2.5	9.2	Y
123	Approved	5/30/2017 - 12/7/2021	1.7 - 110.0	4.1	22.7	Y
308	Approved	4/17/2017 - 12/13/2021	1.7 - 70.0	2.9	10.9	Y
312	Approved	4/17/2017 - 12/13/2021	1.7 - 79.0	3.4	13.7	Y
321	Approved	7/24/2018 - 12/13/2021	1.7 - 240.0	4.0	19.2	Y
322	Approved	7/24/2018 - 12/13/2021	1.7 - 130.0	2.7	9.5	*N/A
120	Unclassified	2/14/2017 - 12/13/2021	1.7 - 350.0	7.2	44.1	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.

* N/A – SRS criteria require a minimum of 30 samples from each station. *

TABLE 2. Marine Water Quality Summary for the Threatened Stations in Quilcene Bay Growing Area

Station: 114

Classification: Approved

Method: SRS

Total Samples: 30 **Range (FC/100 mL): 1.7 - 1600** **GeoMean (FC/100 mL): 4.9**			**Date Range: 4/17/2017 – 12/13/2021** **E90th (FC/100 mL): 34.8** **Meets Standard: Y**			
Sample Date	Event Type	Time	Tide	SWT	Salinity	Fecal Coliform
04/17/2017	Regulatory	09:39	Ebb	11	22	1.7
06/14/2017	Regulatory	08:53	Ebb	15	20	1.8
08/14/2017	Regulatory	12:41	Ebb	21	25	79.0
11/20/2017	Regulatory	11:06	Ebb	9	12	13.0
01/18/2018	Regulatory	09:49	Ebb	9	20	1.7
01/30/2018	Regulatory	12:12	Flood	8	14	1.7
03/21/2018	Regulatory	10:44	Ebb	9	18	1.7
05/24/2018	Regulatory	14:18	Flood	18	18	6.8
07/24/2018	Regulatory	14:06	Flood	23	29	2.0
09/27/2018	Regulatory	09:22	Ebb	15	30	11.0
11/28/2018	Regulatory	09:45	Flood	10	30	2.0
03/28/2019	Regulatory	12:02	Ebb	10	23	1.7
04/17/2019	Regulatory	12:17	Flood	12	27	1.7
05/16/2019	Regulatory	15:26	Flood	17	28	1.7
07/24/2019	Regulatory	09:59	Flood	19	31	17.0
08/08/2019	Regulatory	12:16	Flood	21	30	4.5
10/01/2019	Regulatory	08:48	Ebb	12	31	1.7
12/02/2019	Regulatory	09:47	Flood	10	30	1.7
01/13/2020	Regulatory	09:22	Ebb	6	29	1.7
03/04/2020	Regulatory	10:22	Flood	8	23	1.7
05/28/2020	Regulatory	09:39	Ebb	16	26	11.0
07/23/2020	Regulatory	08:22	Ebb	20	26	31.0
09/24/2020	Regulatory	11:38	Flood	16	29	13.0
11/23/2020	Regulatory	10:43	Flood	9	27	2.0
02/03/2021	Regulatory	12:35	Ebb	7	6	4.0
04/22/2021	Regulatory	12:26	Flood	15	26	2.0
06/30/2021	Regulatory	09:27	Flood	21	21	1600.0
08/04/2021	Regulatory	15:18	Flood	24	28	13.0
10/18/2021	Regulatory	15:21	Flood	12	31	4.0
12/13/2021	Regulatory	12:56	Flood	5	7	7.8

TABLE 2. Continued

Station: 116

Classification: Approved

Method: SRS

Total Samples: 30 **Range (FC/100 mL): 1.7 - 1600** **GeoMean (FC/100 mL): 4.9**	**Date Range: 4/17/2017 – 12/13/2021** **E90th (FC/100 mL): 35.9** **Meets Standard: Y**

Sample Date	Event Type	Time	Tide	SWT	Salinity	Fecal Coliform
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MAP 1. Quilcene Bay Growing Area