

Port Susan

Annual Shellfish Growing Area Review



Prepared By: Trevor Swanson

Area: Port Susan

Year Ending: December 31, 2019

Classification: Approved, Prohibited

Activities in the Growing Area in 2019

Stations in the growing area were sampled six to eight times in accordance with National Shellfish Sanitation Program (NSSP) Systematic Random Sampling (SRS) criteria. Samples missed in 2018 were collected in 2019. In August 2016, the portion of the growing area near the Stillaguamish River mouth was put into Inactive status. The area will remain Inactive until August 2021 or until Active status is requested.

In July, 350 acres of the growing area were reclassified from Approved to Prohibited due to Station 291 failing the NSSP estimated 90th percentile standard.

Snohomish County is developing a closure response plan for the downgraded area. Snohomish County and local partners continued working in the Stillaguamish River watershed using National Estuary Program grant funds for on-site septic system operations and maintenance incentives and pollution identification and control projects.

Analytical Results of Water Samples

Table 1 summarizes results of the 30 most recent samples collected from each of the sampling stations. All stations in the Approved areas meet NSSP standards. Stations 292, 295, and 335 are categorized as Threatened with estimated 90th percentiles of 29.8, 38.9, and 29.8 FC/100 mL, respectively. Station 290 is categorized as Concerned. Table 2 shows individual results for stations 292, 295, and 335.

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

The Department should continue to work with Snohomish County and others to identify and correct sources of pollution in the Stillaguamish River watershed.

TABLE 1. Summary of Marine Water Data (SRS) for Port Susan 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
290	Approved	8/18/2014 - 12/4/2019	1.7 - 79.0	5.2	23.9	Y
292	Approved	2/11/2015 - 12/4/2019	1.7 - 140.0	4.8	29.8	Y
293	Approved	11/17/2014 - 12/4/2019	1.7 - 130.0	4.2	19.2	Y
294	Approved	8/18/2014 - 12/4/2019	1.7 - 49.0	3.5	13.6	Y
295	Approved	12/15/2014 - 12/4/2019	1.7 - 350.0	5.8	38.9	Y
296	Approved	7/21/2014 - 12/4/2019	1.7 - 43.0	4.1	17.7	Y
335	Approved	1/14/2015 - 12/4/2019	1.7 - 170.0	6.0	29.8	Y
344	Approved	2/11/2015 - 12/4/2019	1.7 - 33.0	3.1	10.1	Y
345	Approved	2/11/2015 - 12/4/2019	1.7 - 70.0	3.1	10.5	Y
346	Approved	11/17/2014 - 12/4/2019	1.7 - 70.0	3.0	11.7	Y
291	Prohibited	2/11/2015 - 12/4/2019	1.7 - 170.0	6.4	49.4	N
297	Prohibited	2/11/2015 - 12/4/2019	1.7 - 350.0	6.9	44.3	N
298	Prohibited	1/14/2015 - 12/4/2019	1.7 - 110.0	5.3	26.3	Y
299	Prohibited	12/15/2014 - 12/4/2019	1.7 - 170.0	6.8	38.8	Y
357	Unclassified	7/21/2014 - 12/4/2019	1.7 - 130.0	3.3	13.2	Y
411	Unclassified	7/7/2016 - 12/4/2019	1.7 - 70.0	4.0	19.8	*N/A

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. Marine Water Quality Summary – Threatened Stations in Port Susan Growing Area

Station: 292

Classification: Approved

Method: SRS

Total Samples: 30**Range (FC/100 mL): 1.7 - 140.0****GeoMean (FC/100 mL): 4.8****Date Range: 02/11/2015 - 12/04/2019****E90th (FC/100 mL): 29.8****Meets Standard: Y**

Sample Date	Event Type	Time	Tide	SWT	Salinity	Fecal Coliform
02/11/2015	Regulatory	10:37	Ebb	8	0	7.8
03/12/2015	Regulatory	09:59	Flood	10	25	1.7
04/23/2015	Regulatory	09:54	Ebb	11	18	2.0
05/28/2015	Regulatory	14:15	Flood	18	24	1.7
07/07/2015	Regulatory	09:31	Flood	19	28	1.7
08/20/2015	Regulatory	09:58	Ebb	19	28	1.7
10/20/2015	Regulatory	12:58	Ebb	14	23	1.7
12/07/2015	Regulatory	10:55	Flood	8	11	13.0
01/19/2016	Regulatory	13:52	Ebb	6	4	13.0
03/15/2016	Regulatory	11:14	Ebb	7	3	17.0
05/17/2016	Regulatory	13:27	Flood	18	9	2.0
07/07/2016	Regulatory	07:46	Ebb	15	26	1.7
09/08/2016	Regulatory	11:37	Ebb	17	25	1.8
11/07/2016	Regulatory	13:10	Ebb	10	1	33.0
12/05/2016	Regulatory	10:40	Ebb	6	5	33.0
08/15/2017	Regulatory	11:26	Flood	17	26	1.7
10/12/2017	Regulatory	12:39	Ebb	12	27	1.7
12/13/2017	Regulatory	12:08	Flood	4	13	140.0
02/08/2018	Regulatory	11:10	Flood	7	0	7.8
08/15/2018	Regulatory	08:44	Flood	16	28	1.7
09/17/2018	Regulatory	12:25	Flood	16	10	22.0
10/15/2018	Regulatory	11:08	Flood	12	29	1.7
12/12/2018	Regulatory	10:13	Ebb	6	3	79.0
02/28/2019	Regulatory	11:18	Flood	6	24	1.7
06/06/2019	Regulatory	07:21	Ebb	14	25	4.5
07/08/2019	Regulatory	10:53	Ebb	18	25	1.7
09/04/2019	Regulatory	10:06	Flood	15	31	1.7
10/23/2019	Regulatory	12:28	Flood	11	1	70.0
11/04/2019	Regulatory	10:59	Flood	9	22	2.0
12/04/2019	Regulatory	11:04	Flood	9	20	1.7

TABLE 2. Continued

Station: 295

Classification: Approved

Method: SRS

Total Samples: 30**Range (FC/100 mL): 1.7 - 350.0****GeoMean (FC/100 mL): 5.8****Date Range: 12/15/2014 - 12/04/2019****E90th (FC/100 mL): 38.9****Meets Standard: Y**

Sample Date	Event Type	Time	Tide	SWT	Salinity	Fecal Coliform
12/15/2014	Regulatory	13:01	Ebb	6	6	7.8
01/14/2015	Regulatory	12:21	Ebb	6	9	1.7
02/11/2015	Regulatory	10:45	Ebb	9	1	13.0
03/12/2015	Regulatory	10:07	Ebb	11	21	4.5
04/23/2015	Regulatory	09:34	Ebb	11	17	2.0
05/28/2015	Regulatory	14:30	Flood	21	21	1.7
07/07/2015	Regulatory	09:23	Flood	21	27	1.7
10/20/2015	Regulatory	12:50	Ebb	14	23	2.0
12/07/2015	Regulatory	10:39	Flood	7	7	23.0
01/19/2016	Regulatory	13:42	Ebb	6	5	11.0
03/15/2016	Regulatory	11:07	Ebb	7	4	13.0
07/07/2016	Regulatory	07:51	Ebb	15	25	1.7
09/08/2016	Regulatory	11:44	Ebb	17	25	2.0
11/07/2016	Regulatory	13:40	Ebb	10	1	49.0
12/05/2016	Regulatory	10:18	Ebb	6	11	350.0
08/15/2017	Regulatory	11:22	Flood	18	26	1.7
10/12/2017	Regulatory	12:16	Flood	12	25	2.0
12/13/2017	Regulatory	11:55	Flood	5	16	7.8
02/08/2018	Regulatory	11:18	Ebb	7	0	4.5
08/15/2018	Regulatory	08:55	Ebb	18	27	1.7
09/17/2018	Regulatory	12:40	Flood	16	5	49.0
10/15/2018	Regulatory	11:00	Flood	12	28	1.7
12/12/2018	Regulatory	10:21	Ebb	6	8	33.0
02/28/2019	Regulatory	11:05	Flood	6	23	1.7
06/06/2019	Regulatory	07:13	Ebb	15	24	1.7
07/08/2019	Regulatory	10:38	Ebb	19	24	1.7
09/04/2019	Regulatory	10:14	Flood	18	29	6.8
10/23/2019	Regulatory	12:32	Flood	10	1	140.0
11/04/2019	Regulatory	11:06	Flood	10	27	9.3
12/04/2019	Regulatory	11:27	Flood	9	19	2.0

TABLE 2. Continued

Station: 335

Classification: Approved

Method: SRS

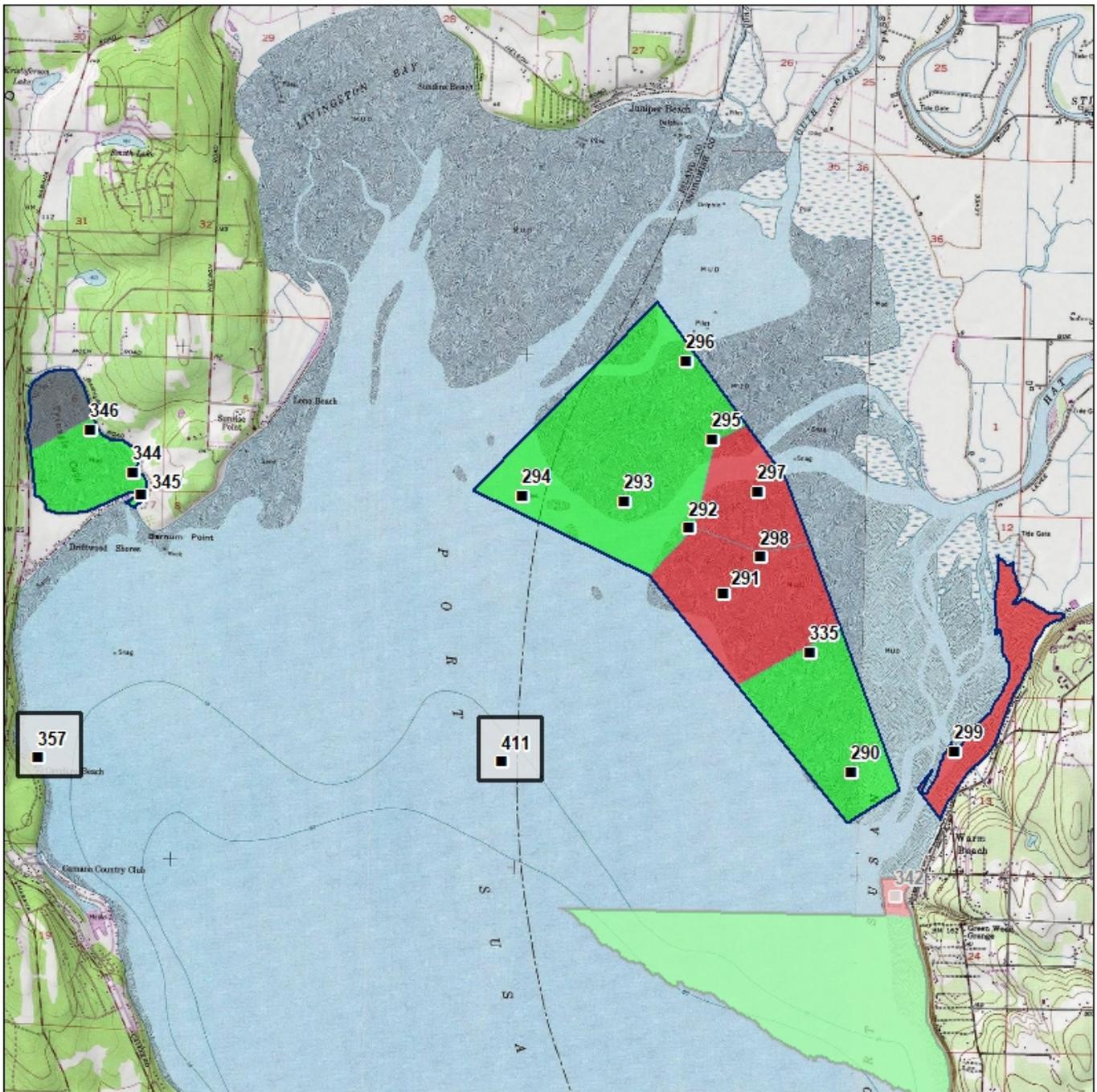
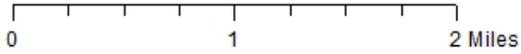
Total Samples: 30**Range (FC/100 mL): 1.7 - 170.0****GeoMean (FC/100 mL): 6****Date Range: 01/14/2015 - 12/04/2019****E90th (FC/100 mL): 29.8****Meets Standard: Y**

Sample Date	Event Type	Time	Tide	SWT	Salinity	Fecal Coliform
01/14/2015	Regulatory	11:57	Ebb	6	5	2.0
02/11/2015	Regulatory	10:20	Ebb	8	0	11.0
03/12/2015	Regulatory	09:43	Flood	11	25	2.0
04/23/2015	Regulatory	09:17	Ebb	11	19	1.7
05/28/2015	Regulatory	14:59	Flood	21	23	1.7
07/07/2015	Regulatory	09:03	Flood	20	25	7.8
08/20/2015	Regulatory	09:40	Flood	19	27	2.0
10/20/2015	Regulatory	12:35	Ebb	14	21	4.0
12/07/2015	Regulatory	10:20	Flood	7	4	17.0
01/19/2016	Regulatory	14:09	Ebb	5	1	6.8
03/15/2016	Regulatory	11:28	Ebb	6	2	33.0
05/17/2016	Regulatory	13:38	Flood	20	10	4.5
07/07/2016	Regulatory	07:39	Ebb	15	26	33.0
09/08/2016	Regulatory	11:26	Ebb	17	24	4.5
11/07/2016	Regulatory		Ebb			49.0
12/05/2016	Regulatory	09:55	Ebb	5	4	7.8
08/15/2017	Regulatory	10:58	Flood	18	24	14.0
10/12/2017	Regulatory	11:57	Flood	12	27	1.7
12/13/2017	Regulatory	11:37	Flood	5	18	4.5
02/08/2018	Regulatory	11:40	Ebb	7	0	4.5
08/15/2018	Regulatory	08:20	Flood	17	28	21.0
10/15/2018	Regulatory	10:37	Flood	12	28	2.0
12/12/2018	Regulatory	10:01	Ebb	5	0	23.0
02/28/2019	Regulatory	10:45	Flood	6	21	1.7
06/06/2019	Regulatory	06:56	Flood	14	21	17.0
07/08/2019	Regulatory	10:14	Ebb	17	26	1.7
09/04/2019	Regulatory	09:57	Flood	17	31	1.7
10/23/2019	Regulatory	12:09	Flood	10	1	170.0
11/04/2019	Regulatory	10:48	Flood	9	21	2.0
12/04/2019	Regulatory	11:12	Flood	9	20	1.7

MAP 1. Port Susan Growing Area

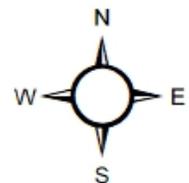
 Port Susan


 Date Updated: 7/15/2019



- Classification**
-  Approved
 -  Conditional
 -  Prohibited
 -  Restricted
 -  Unclassified

- Sampling Stations**
- 



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