

# Makah Bay

## Annual Shellfish Growing Area Review



Prepared By: Tim Jahraus

Area: Makah Bay

Year Ending: December 31, 2019

Classification: Approved, Prohibited

### Activities in the Growing Area in 2019

The growing area was sampled six times in accordance with National Shellfish Sanitation Program (NSSP) Systematic Random Sampling criteria. Sampling at Station 201 was not completed in September and, therefore, was only sampled five times.

### Analytical Results of Water Samples

Table 1 summarizes results of the 30 most recent samples collected from the area. This summary shows that all stations pass the NSSP water quality standard. Station 202 is “threatened” with an estimated 90<sup>th</sup> percentile of 35.1 FC/100mL and Station 204 is “concerned”. Table 2 shows the last 30 sample results collected at Station 202.

### 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.

**TABLE 1. Summary of Marine Water Data (SRS) Makah 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 <sup>th</sup> Percentile (FC/100mL)	Meets Standard
201	Approved	3/9/2016 - 11/18/2019	1.7 - 33.0	3.0	9.0	Y
202	Approved	5/18/2016 - 11/18/2019	1.7 - 920.0	4.8	35.1	Y
203	Approved	4/27/2016 - 11/18/2019	1.7 - 170.0	3.9	19.2	Y
204	Approved	6/15/2016 - 11/18/2019	1.7 - 130.0	4.2	22.5	Y
200	Prohibited	6/15/2016 - 11/18/2019	1.7 - 240.0	17.5	138.3	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. Marine Water Quality Summary – Threatened Station in Makah Bay Growing Area**

Station: 202

Classification: Approved

Method: SRS

**Total Samples: 30****Range (FC/100 mL): 1.7 - 920.0****GeoMean (FC/100 mL): 4.8****Date Range: 5/18/2016 - 11/18/2019****E90th (FC/100 mL): 35.1****Meets Standard: Y**

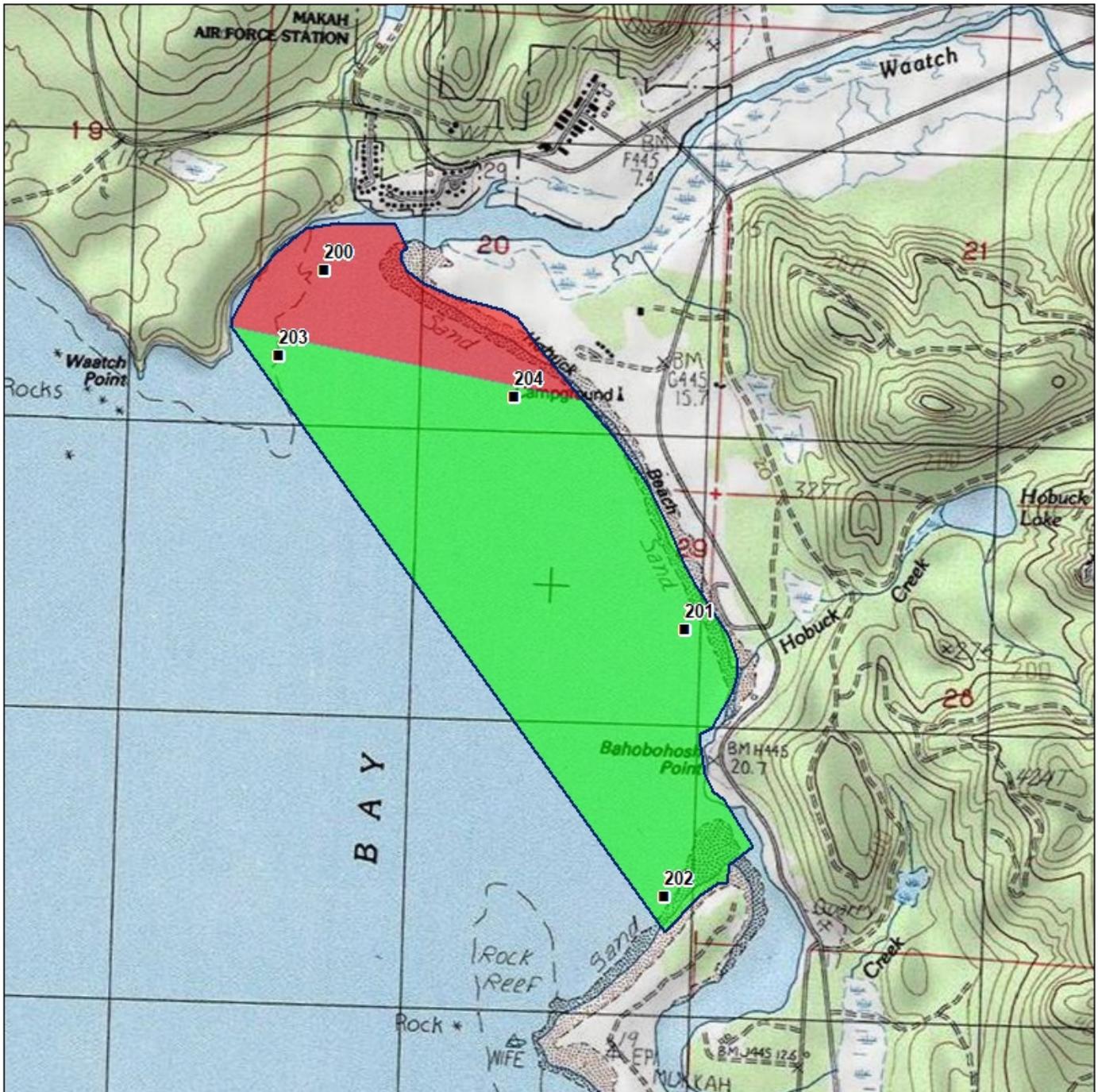
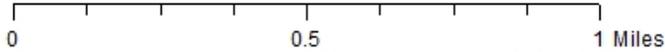
Sample Date	Event Type	Time	Tide	SWT	Salinity	Fecal Coliform
05/18/2016	Regulatory	09:36	Flood	13	28	1.7
06/15/2016	Regulatory	10:20	Flood	14	27	1.7
07/20/2016	Regulatory	10:32	Flood	18	31	920.0
08/17/2016	Regulatory	09:35	Flood	16	30	110.0
10/05/2016	Regulatory	11:13	Flood	13	21	23.0
11/14/2016	Regulatory	10:19	Flood	13	26	13.0
01/18/2017	Regulatory	10:09	Ebb	9	16	31.0
02/27/2017	Regulatory	09:48	Flood	9	27	1.7
03/21/2017	Regulatory	09:38	Ebb	10	28	1.7
04/06/2017	Regulatory	11:50	Ebb	11	23	2.0
05/24/2017	Regulatory	10:14	Flood	13	27	4.5
06/05/2017	Regulatory	11:51	Ebb	15	28	1.7
07/11/2017	Regulatory	09:30	Ebb	14	26	23.0
08/22/2017	Regulatory	08:59	Flood	15	29	4.5
09/05/2017	Regulatory	10:42	Flood	16	29	1.7
10/18/2017	Regulatory	09:13	Flood	13	27	2.0
11/07/2017	Regulatory	10:41	Flood	9	27	1.7
01/17/2018	Regulatory	09:38	Flood	10	26	1.7
02/14/2018	Regulatory	09:43	Flood	10	28	1.7
03/12/2018	Regulatory	10:00	Flood	9	24	1.7
04/10/2018	Regulatory	10:37	Ebb	10	28	1.7
06/11/2018	Regulatory	10:10	Flood	16	24	4.5
07/23/2018	Regulatory	11:23	Flood	16	28	1.7
10/03/2018	Regulatory	11:13	Ebb	14	28	1.7
01/10/2019	Regulatory	09:41	Flood	11	20	13.0
02/26/2019	Regulatory	10:38	Ebb	8	30	1.7
05/21/2019	Regulatory	09:45	Ebb	14	26	4.5
07/23/2019	Regulatory	10:46	Ebb	18	23	7.8
09/11/2019	Regulatory	10:19	Flood	16	30	1.7
11/18/2019	Regulatory	09:34	Ebb	11	11	33.0

MAP 1. Makah Bay Growing Area

Makah Bay

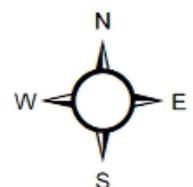


Date Updated: 10/25/2018



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

**Sampling Stations**



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