

Kalaloch

Annual Shellfish Growing Area Review



Prepared By: Trevor Swanson

Area: Kalaloch

Year Ending: December 31, 2019

Classification: Approved, Conditionally Approved

Activities in the Growing Area in 2019

An initial shoreline survey of the growing area was completed in response to a harvest request. No Direct or Indirect impacts were identified. The growing area was initially classified. Stations 221-227 in the Approved portion of the growing area were sampled six times in accordance with National Shellfish Sanitation Program (NSSP) Systematic Random Sampling (SRS) criteria. Station 224 in the Conditionally Approved portion was sampled seven times (four times in Open status) in accordance with Adverse Pollution Condition (APC) criteria. The Conditionally Approved portion is closed from September 1 through December 31 based on seasonal water quality conditions. This year the Conditionally Approved area was closed from October 22 through December 31, after the classification was finalized.

Analytical Results of Water Samples

Table 1 summarizes the most recent 30 samples collected from each of the sampling stations. It includes samples collected when the Conditionally Approved area was closed to harvest. Tables 2 and 3 show all Open and Closed status sampling results for Conditionally Approved Station 224 in relation to APC criteria. All stations meet NSSP criteria for their respective classifications. Station 225 has a Threatened status with an estimated 90th percentile of 37.4 FC/100 mL. Station 221 is categorized as Concerned.

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 growing 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 Kalaloch 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
221	Approved	12/7/2016 - 11/12/2019	1.7 - 240.0	3.9	23.6	Y
222	Approved	12/7/2016 - 11/12/2019	1.7 - 280.0	3.4	19.5	Y
223	Approved	12/7/2016 - 11/12/2019	1.7 - 49.0	2.8	10.8	Y
225	Approved	12/7/2016 - 11/12/2019	1.7 - 350.0	5.7	37.4	Y
226	Approved	12/7/2016 - 11/12/2019	1.7 - 110.0	3.4	16.0	Y
227	Approved	12/7/2016 - 11/12/2019	1.7 - 130.0	3.5	15.6	Y
224	Conditionally Approved	2/9/2017 - 12/4/2019	1.7 - 240.0	4.8	32.5	Y

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 (APC) Open Status for Kalaloch Growing Area

Sampling Event Type: Regulatory

Number of Samples: 19

Tides Included: All

Includes data from the Open period (January through August).

Station Number	Classification	Date Range	Range (FC/100mL)	Geomean (FC/100mL)	% of Samples >43 FC/100mL	Meets Standard
224	Conditionally Approved	6/15/2016 - 12/4/2019	1.7 - 46.0	3.4	4.35	Y

The standard for approved shellfish growing waters is fecal coliform geometric mean not greater than 14 organisms / 100 mL with not more than 10 percent greater than 43 organisms / 100 mL. The above table shows bacteriological results in relation to program standards.

TABLE 3. Summary of Conditionally Approved Marine Water Data (APC) Closed Status for Kalaloch Growing Area

Sampling Event Type: Regulatory

Number of Samples: 15

Tides Included: All

Includes data from the Closed period (September through December).

Station Number	Classification	Date Range	Range (FC/100mL)	Geomean (FC/100mL)	% of Samples >43 FC/100mL	Meets Standard
224	Conditionally Approved	6/15/2016 - 12/4/2019	1.7 - 240.0	12.1	33.33	N

The standard for approved shellfish growing waters is fecal coliform geometric mean not greater than 14 organisms / 100 mL with not more than 10 percent greater than 43 organisms / 100 mL. The above table shows bacteriological results in relation to program standards.

TABLE 4. Marine Water Quality Summary – Threatened station in Kalaloch Growing Area

Station: 225

Classification: Approved

Method: SRS

Total Samples: 30**Range (FC/100 mL): 1.7 - 350.0****GeoMean (FC/100 mL): 5.7****Date Range: 12/07/2016 - 11/12/2019****E90th (FC/100 mL): 37.4****Meets Standard: Y**

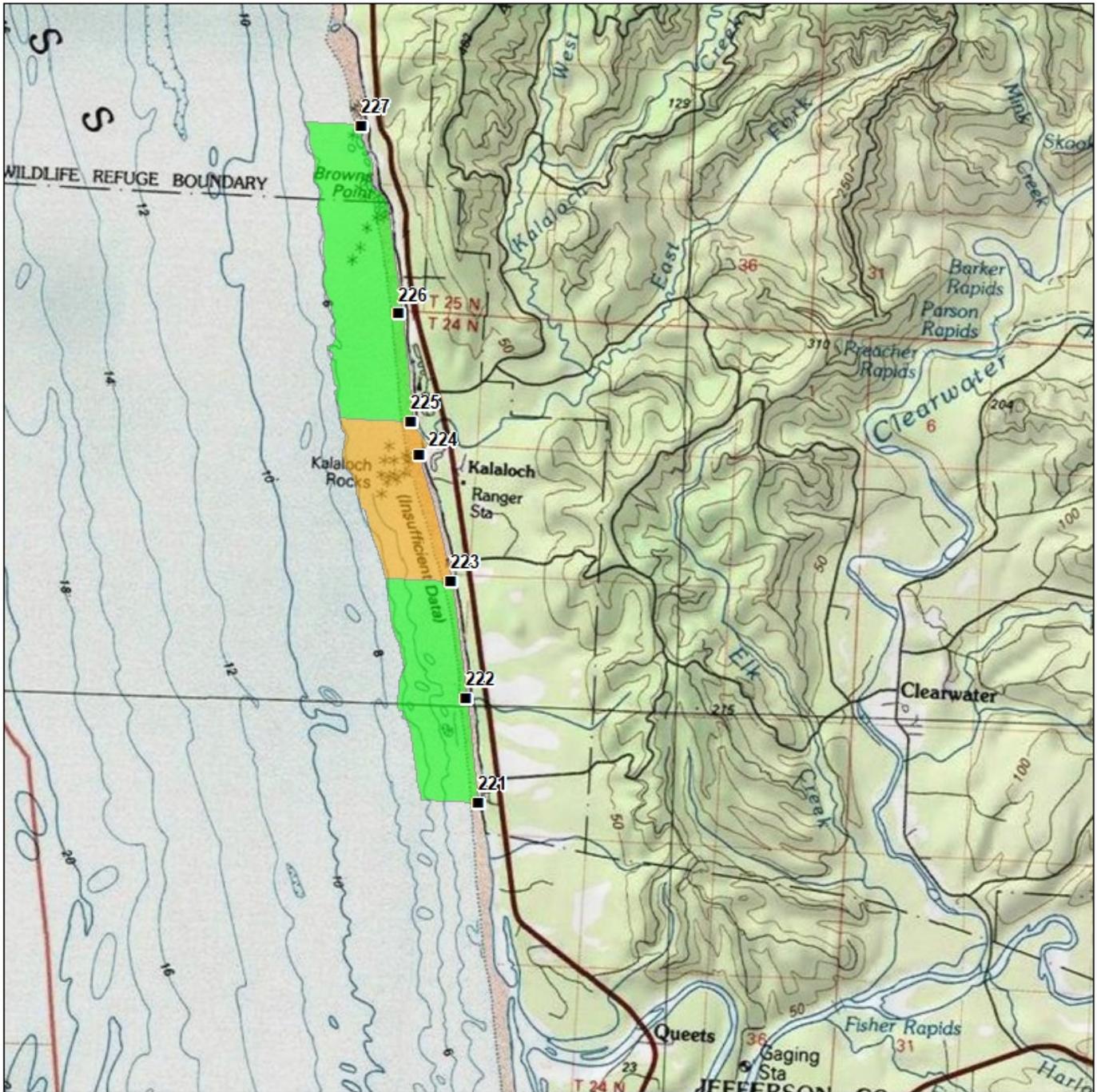
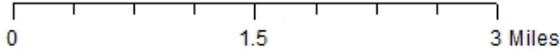
Sample Date	Event Type	Time	Tide	SWT	Salinity	Fecal Coliform
12/07/2016	Regulatory	13:16	Flood	9	23	1.7
01/18/2017	Regulatory	09:42	Ebb	9	22	33.0
02/09/2017	Regulatory	13:05	Ebb	7	11	33.0
03/02/2017	Regulatory	09:40	Flood	8	25	2.0
04/11/2017	Regulatory	15:25	Ebb	10	20	1.7
05/16/2017	Regulatory	10:00	Ebb	10	14	31.0
06/06/2017	Regulatory	13:16	Ebb	13	20	2.0
07/18/2017	Regulatory	09:36	Ebb	11	24	1.7
08/15/2017	Regulatory	12:55	Ebb	15	24	1.7
09/12/2017	Regulatory	02:10	Flood	14	13	14.0
10/17/2017	Regulatory	12:45	Ebb	11	12	350.0
11/20/2017	Regulatory	12:44	Flood	14	10	23.0
12/11/2017	Regulatory	12:36	Ebb	9	24	2.0
01/16/2018	Regulatory	12:06	Ebb	10	18	2.0
02/05/2018	Regulatory	09:36	Flood	9	10	11.0
03/13/2018	Regulatory	11:55	Ebb	9	23	1.7
04/16/2018	Regulatory	10:37	Flood	9	9	11.0
05/15/2018	Regulatory	14:05	Flood	14	26	1.7
06/20/2018	Regulatory	07:50	Ebb	16	27	1.7
07/24/2018	Regulatory	11:57	Flood	14	22	7.8
08/14/2018	Regulatory	06:50	Ebb	13	29	2.0
09/11/2018	Regulatory	12:31	Flood	15	12	49.0
11/19/2018	Regulatory	12:30	Ebb	10	24	1.7
12/11/2018	Regulatory	09:12	Flood	9	11	70.0
01/15/2019	Regulatory	09:12	Ebb	8	22	1.7
03/19/2019	Regulatory	09:55	Flood	9	25	1.7
05/14/2019	Regulatory	06:49	Flood	12	25	1.7
07/09/2019	Regulatory	07:43	Ebb	16	25	6.8
09/10/2019	Regulatory	06:52	Flood	16	27	11.0
11/12/2019	Regulatory	08:20	Flood	11	23	4.5

MAP 1. Kalaloch Growing Area

 Kalaloch

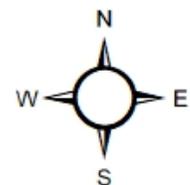


Date Updated: 8/14/2019



Classification Sampling Stations

-  Approved
-  Conditional
-  Prohibited
-  Restricted
-  Unclassified



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