

Washington State Department of Health Office of Shellfish and Water Protection

Annual Growing Area Review

PREPARED BY: Jule Schultz
AREA: Filucy Bay
YEAR ENDING: December 31, 2011
CLASSIFICATION: Conditionally Approved, Prohibited, Restricted

Activities in the Growing Area in 2011

Filucy Bay was sampled 13 times in 2011 using the Systematic Random Sampling method. The Conditionally Approved area was sampled nine times during Open status. The Conditionally Approved area is closed for six days when over 0.75 inch of rain falls at Minter Creek Salmon Hatchery in 24 hours. In 2011, Filucy Bay was closed 9 times for 69 days. Shellfish are harvested in the Restricted portion of Filucy Bay and relayed to another portion of Filucy Bay, with a purification period of over 60 days. The Shellfish Protection District continues to collect fecal coliform samples and identify and provide access to resources to fix failing on-site septic systems.

Analytical Results Of Water Samples

Table 1 summarizes the 30 most recent marine water quality results. Station 764 exceeds the marine water quality standards using a closure level of 0.75 inch of rain in 24 hours and Stations 275, 278, and 279 are Threatened. All stations show significant improvement using a 0.50 inch closure standard. Station 275 is nearly failing the NSSP marine water standard for a Restricted classification. Table 2 shows individual results from Stations 275, 278, 279, and 764.

Change In Actual Pollution Sources That Impact The Growing Area

The number of boats moored near the Conditionally Approved area has been reduced.

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

Change the Conditionally Approved Area Management Plan to close Filucy Bay after 0.50 inch of rain falls in 24 hours. Agencies should continue pollution source investigations to identify and correct the sources in the Filucy Bay watershed.

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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)
Growing Area: Filucy Bay
Classification: Conditionally Approved, Restricted, Prohibited**

Fecal Coliform Organisms/100 ml

Station	Sample Date Range	Classification	Number of Samples	Range	Geometric Mean	Est. 90 th Percentile	Meets Std.
Data Sort: 0.75-inch rainfall in 24-hours (6 day closure)							
274	5/13/08 – 12/31/11	Conditionally Approved	30	<1.8 – 70	3.9	16.0	Yes
278	5/13/08 – 12/31/11	Conditionally Approved	30	<1.8 – 920	5.0	39.0	Yes
279	5/13/08 – 12/31/11	Conditionally Approved	30	<1.8 – 350	5.7	37.0	Yes
764	5/13/08 – 12/31/11	Conditionally Approved	14	<1.8 – 540	8.2	77.0	N/A
Data Sort: 0.50-inch rainfall in 24-hours (6 day closure)							
274	9/17/07 – 12/31/11	Conditionally Approved	31	<1.8 – 49	3.4	11.0	Yes
278	9/17/07 – 12/31/11	Conditionally Approved	31	<1.8 – 70	4.1	19.0	Yes
279	9/17/07 – 12/31/11	Conditionally Approved	31	<1.8 – 70	4.5	19.0	Yes
764	9/17/07 – 12/31/11	Conditionally Approved	12	2.0 – 49	6.6	35.0	N/A
Data Sort: None							
276	8/11/09 – 12/31/11	Prohibited	30	<1.8 – 350	4.2	27	Yes
275	8/11/09 – 12/31/11	Restricted	30	<1.8 – 1600	20.2	226.0	No
<p>The standard for approved shellfish growing waters is fecal coliform geometric mean not greater than 14 organisms/100 ml and an estimate of the 90th percentile not greater than 43 organisms/100 ml. The above table shows bacteriological results in relation to program standards.</p> <p>N/A – SRS criteria requires a minimum of 30 samples from each station.</p>							

TABLE 2**SUMMARY OF SHELLFISH GROWING AREAS
WATER QUALITY STUDY RESULTS**Growing Area: **FILUCY BAY**Sampling Station Number: **275**Classification: **Restricted**

Sample Date	Sample Time	Tide	Fcoli/100ml	Temperature	Salinity
08/11/2009	12:33	Ebb	79	17	26
09/21/2009	12:39	Ebb	23	14	29
10/27/2009	09:37	Flood	13	11	28
11/23/2009	12:11	Ebb	110	8	15
12/28/2009	10:59	Flood	1.8	8	18
01/06/2010	09:52	Flood	1.7	9	28
02/08/2010	09:40	Flood	4.5	8	26
03/08/2010	09:52	Flood	1.7	8	20
04/07/2010	09:38	Flood	17	8	12
05/04/2010	08:15	Flood	540	9	15
06/02/2010	13:22	Ebb	1600	15	3
07/07/2010	16:09	Flood	2	16	28
08/11/2010	10:51	Ebb	7.8	15	28
09/01/2010	13:10	Flood	17	16	25
10/28/2010	14:59	Ebb	49	12	26
11/04/2010	14:31	Flood	11	14	23
12/01/2010	13:02	Flood	4.5	9	23
01/13/2011	13:44	Ebb	350	6	1
03/03/2011	12:59	Flood	4.5	7	4
03/10/2011	09:36	Ebb	240	8	2
04/07/2011	08:40	Ebb	11	8	23
05/11/2011	11:25	Flood	13	12	12
06/22/2011	09:40	Flood	33	15	26
07/05/2011	11:28	Ebb	2	14	28
07/19/2011	12:00	Ebb	7.8	14	27
08/03/2011	08:49	Flood	49	17	27
09/13/2011	08:10	Ebb	49	15	27
10/03/2011	09:31	Flood	240	13	21
11/14/2011	09:37	Ebb	79	7	15
12/05/2011	09:37	Flood	2	8	27

Number of Samples: 30

Geometric Mean: 20.2

Range: 1.7 - 1600

Estimated 90th Percentile: 226

**SUMMARY OF SHELLFISH GROWING AREAS : 0.75 inch rainfall sort
WATER QUALITY STUDY RESULTS**

Growing Area: **FILUCY BAY**
Sampling Station Number: **278**
Classification: **Conditionally Approved**

Sample Date	Sample Time	Tide	Fcoli/100ml	Temperature	Salinity
05/13/2008	09:39	Flood	1.7	11	29
06/11/2008	09:53	Flood	1.7	11	29
07/23/2008	11:52	Flood	4	16	29
08/06/2008	09:28	Flood	1.7	15	29
09/03/2008	12:11	Ebb	2	14	32
02/04/2009	09:45	Flood	1.7	7	29
03/04/2009	09:53	Flood	1.7	8	29
04/02/2009	09:40	Flood	2	7	27
06/15/2009	10:00	Flood	22	15	28
07/14/2009	09:42	Flood	6.8	15	29
08/11/2009	12:30	Ebb	13	17	27
09/21/2009	12:35	Ebb	4.5	15	29
10/27/2009	09:33	Flood	1.7	11	29
12/28/2009	10:55	Flood	1.7	8	28
02/08/2010	09:37	Flood	33	9	28
03/08/2010	09:58	Flood	2	9	25
05/04/2010	08:12	Flood	920	9	21
06/02/2010	13:16	Ebb	79	15	19
08/11/2010	10:48	Ebb	1.7	15	28
09/01/2010	13:06	Flood	1.7	16	28
12/01/2010	12:58	Flood	1.7	9	28
05/11/2011	11:23	Flood	2	12	26
06/22/2011	09:38	Flood	2	15	27
07/05/2011	11:21	Ebb	1.8	14	28
07/19/2011	11:57	Ebb	1.7	14	28
08/03/2011	08:44	Flood	17	17	28
09/13/2011	08:07	Ebb	70	15	29
10/03/2011	09:27	Flood	70	13	27
11/14/2011	09:32	Ebb	4	10	28
12/05/2011	09:34	Flood	2	9	29

Number of Samples: 30
Geometric Mean: 5.0

Range: 1.7 - 920
Estimated 90th Percentile: 39

**SUMMARY OF SHELLFISH GROWING AREAS : 0.75 inch rainfall sort
WATER QUALITY STUDY RESULTS**

Growing Area: **FILUCY BAY**
Sampling Station Number: **279**
Classification: **Conditionally Approved**

Sample Date	Sample Time	Tide	Fcoli/100ml	Temperature	Salinity
05/13/2008	09:42	Flood	1.7	11	29
06/11/2008	09:55	Flood	2	12	29
07/23/2008	11:54	Flood	6.8	16	29
08/06/2008	09:30	Flood	1.7	16	29
09/03/2008	12:15	Ebb	7.8	14	32
02/04/2009	09:47	Flood	1.7	7	29
03/04/2009	09:55	Flood	1.7	8	29
04/02/2009	09:42	Flood	1.8	7	25
06/15/2009	10:02	Flood	23	15	28
07/14/2009	09:43	Flood	1.7	15	29
08/11/2009	12:32	Ebb	1.7	17	28
09/21/2009	12:37	Ebb	11	15	29
10/27/2009	09:36	Flood	22	12	30
12/28/2009	10:58	Flood	6.1	8	27
02/08/2010	09:43	Flood	7.8	9	28
03/08/2010	09:47	Flood	1.7	9	30
05/04/2010	08:19	Flood	350	10	21
06/02/2010	13:18	Ebb	110	15	16
08/11/2010	10:54	Ebb	1.7	15	28
09/01/2010	13:15	Flood	1.7	16	28
12/01/2010	13:06	Flood	2	9	28
05/11/2011	11:29	Flood	6.8	12	25
06/22/2011	09:44	Flood	2	15	27
07/05/2011	11:33	Ebb	3.7	14	28
07/19/2011	12:03	Ebb	1.8	13	27
08/03/2011	08:53	Flood	22	17	28
09/13/2011	08:13	Ebb	70	15	28
10/03/2011	09:34	Flood	22	13	29
11/14/2011	09:40	Ebb	23	9	29
12/05/2011	09:41	Flood	2	9	29

Number of Samples: 30
Geometric Mean: 5.7

Range: 1.7 - 350
Estimated 90th Percentile: 37

**SUMMARY OF SHELLFISH GROWING AREAS : 0.75 inch rainfall sort
WATER QUALITY STUDY RESULTS**

Growing Area: **FILUCY BAY**
Sampling Station Number: **764**
Classification: **Conditionally Approved**

Sample Date	Sample Time	Tide	Fcoli/100ml	Temperature	Salinity
03/08/2010	09:50	Flood	2	9	25
05/04/2010	08:14	Flood	540	9	17
07/07/2010	16:14	Flood	1.7	16	27
08/11/2010	10:49	Ebb	2	15	28
09/01/2010	13:08	Flood	2	16	28
12/01/2010	13:00	Flood	1.7	9	26
05/11/2011	11:24	Flood	2	12	25
06/22/2011	09:39	Flood	23	15	28
07/05/2011	11:24	Ebb	2	13	28
07/19/2011	11:59	Ebb	7.8	13	27
08/03/2011	08:46	Flood	49	17	28
09/13/2011	08:09	Ebb	33	15	28
10/03/2011	09:29	Flood	17	13	28
11/14/2011	09:34	Ebb	23	9	27
12/05/2011	09:35	Flood	2	8	27

Number of Samples: 15

Geometric Mean: 7.4

Range: 1.7 - 540

Estimated 90th Percentile: 68

† All samples have been verified.

MAP 1

filucy Bay 6/17/10



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