

# Washington State Department of Health Office of Shellfish and Water Protection

## Annual Growing Area Review

**PREPARED BY:** Kelly Curtis  
**AREA:** Burley Lagoon  
**YEAR ENDING:** December 31, 2011  
**CLASSIFICATION:** Approved, Conditionally Approved, Restricted

### Activities in the Growing Area in 2011

The Burley Lagoon commercial shellfish growing area was sampled twelve times in accordance with the NSSP Systematic Random Sampling criteria. The Conditionally Approved area was in Open status during 10 of these sample events. The Conditionally Approved portion of Burley Lagoon was closed for 102 days due to rainfall. The Approved portion of the growing area was closed for 7 days due to extremely heavy rainfall. There is an approved relay from the Restricted area of Burley Lagoon to the Approved area of Burley Lagoon. In November, the CAAMP was changed from 0.5" to 1.0" rainfall.

### Analytical Results Of Water Samples

Table 1 summarizes the results of the most recent 30 water samples collected from the Approved and the Restricted portions of the area. Station 334 and 343 are in Concerned status due to elevated bacteria levels. The 90<sup>th</sup> percentiles have increased significantly for the Restricted stations since the last Annual Report.

Table 2 summarizes the results of the most recent 30 samples collected from the Conditionally Approved portion of the area. All stations pass the NSSP water quality standard. Stations 337, 338, 340, and 342 are in the Concerned status due elevated bacteria levels. Station 331 is in the Threatened status; the 90<sup>th</sup> percentile has increased significantly since the last Annual Report (from 19 to 34). Individual sampling results for Station 331 are shown in Table 3.

### 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

Pierce and Kitsap Counties continue to investigate pollution sources in the area.

**Washington State Department of Health  
Office of Shellfish and Water Protection**

**Annual Growing Area Review**

**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: **BURLEY LAGOON**

Classification: **Approved, Restricted**

From **08/11/2009** To **12/05/2011**

### FECAL COLIFORM ORGANISMS/100 ML

Station Number	Classification	Number of Samples	Range	Geometric Mean	Est. 90th Percentile	Meets Std.
334	Approved	30	1.7 - 110.0	4.4	21.0	Yes
335	Approved	30	1.7 - 49.0	3.6	10.0	Yes
343	Approved	30	1.7 - 240.0	4.6	20.0	Yes
344	Approved	30	1.7 - 110.0	4.3	17.0	Yes
339	Restricted	30	1.7 - 350.0	9.9	55.0	No
694	Restricted	30	1.7 - 350.0	16.3	105.0	No
772	Restricted	18	1.7 - 240.0	13.9	78.0	*N/A

All tides information is presented

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.

† All samples have been verified.

## TABLE 2

### SUMMARY OF MARINE WATER DATA (SRS)

Growing Area: **BURLEY LAGOON**

Classification: **Conditionally Approved**

From **12/04/2008** To **12/05/2011**

### FECAL COLIFORM ORGANISMS/100 ML

Rainfall Information is **Day 0** for 4 days prior between **0.00** and **0.99**

Station Number	Classification	Number of Samples	Range	Geometric Mean	Est. 90th Percentile	Meets Std.
331	Conditionally Approved	30	1.7 - 240.0	6.4	34.0	Yes
333	Conditionally Approved	30	1.7 - 79.0	4.9	19.0	Yes
336	Conditionally Approved	30	1.7 - 49.0	5.6	19.0	Yes
337	Conditionally Approved	30	1.7 - 33.0	5.7	22.0	Yes
338	Conditionally Approved	30	1.7 - 110.0	6.6	21.0	Yes
340	Conditionally Approved	30	1.7 - 49.0	7.3	23.0	Yes
342	Conditionally Approved	30	1.7 - 49.0	5.8	24.0	Yes

All tides information is presented

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.

† All samples have been verified.

**TABLE 3****SUMMARY OF SHELLFISH GROWING AREAS  
WATER QUALITY STUDY RESULTS**Growing Area: **BURLEY LAGOON**Sampling Station Number: **331**Classification: **Conditionally Approved**

Sample Date	Sample Time	Tide	Fcoli/100ml	Temperature	Salinity
12/04/2008	12:42	Flood	4	10	29
02/04/2009	11:55	Ebb	1.7	7	28
03/04/2009	11:50	Ebb	1.7	8	29
04/02/2009	11:50	Ebb	2	8	28
05/19/2009	11:55	Flood	4.5	15	28
06/15/2009	12:30	Ebb	2	19	27
07/14/2009	11:36	Ebb	4.5	16	28
08/11/2009	10:34	Ebb	13	18	27
09/21/2009	10:34	Ebb	2	13	30
10/27/2009	11:41	Flood	17	9	24
11/23/2009	10:17	Flood	4.5	10	28
12/28/2009	12:27	Flood	4.5	7	26
02/08/2010	12:01	Flood	1.7	9	27
03/08/2010	11:20	Ebb	17	7	20
05/04/2010	10:24	Ebb	2	12	27
06/02/2010	10:48	Ebb	4.5	14	26
07/07/2010	14:13	Flood	1.7	14	28
08/11/2010	08:24	Ebb	23	17	27
09/01/2010	11:14	Flood	33	16	25
12/01/2010	10:19	Flood	240	8	18
04/07/2011	10:12	Ebb	4.5	6	15
05/11/2011	13:30	Ebb	7.8	12	26
06/22/2011	11:33	Ebb	4.5	15	24
07/05/2011	09:31	Ebb	79	16	26
07/19/2011	09:28	Ebb	7.8	16	26
08/03/2011	10:39	Ebb	79	17	27
09/13/2011	09:55	Ebb	6.8	16	28
10/03/2011	11:01	Flood	2	13	29
11/14/2011	11:39	Ebb	1.7	10	29
12/05/2011	11:37	Flood	17	7	20

Number of Samples: 30

Range: 1.7 - 240

Geometric Mean: 6.4

Estimated 90th Percentile: 34

† All samples have been verified.

# MAP 1

