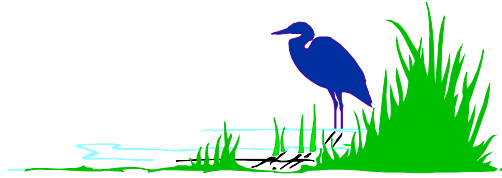


Mason County Public Health



Staff Report of Oakland Bay Activities 1/1/09 to 3/31/09

3/30/09
Stephanie Kenny

Funded through Consolidated Contract # C14956

Task 1-Coordination, Updates and Public Education on implementation work

During the 1st quarter of 2009 MCPH held three Oakland Bay Clean Water District Advisory Group meetings. Meeting notes and monthly updates on sampling activities were distributed at the meetings. Three verbal monthly updates were given to the group. One sanitary survey progress report was developed to hand out at the group meeting and one On-site Program report was handed out. The On-site report listed the numbers of complaints and repairs in the Oakland Bay area. In the first two months of the quarter two upland complaints were investigated and two septic repairs were finalized. One of the repairs was on a shoreline property in the Crestview area. The meeting notes have been attached to this report

MCPH worked with committee members this quarter to develop their written task list updates. This quarter is the first time written updates have been required. MCPH updated the Oakland Bay Action Plan Strategy from the task list updates. The Oakland Bay Action Plan Strategy functions as an overall work plan for Oakland Bay Action Plan. With some adjustment it will also be used by Ecology as the implementation plan for the Oakland Bay TMDL. The updated has now been divided into the current matrix and completed matrix. New tasks have been added to the current section and completed tasks have been moved into the completed section. The matrix has been attached to this report.

MCPH updated the Oakland Bay Clean Water District website this quarter to include meeting agendas, meeting minutes and more Oakland Bay reports. Links between pages were added to make it easier for the public to find Oakland Bay information.

Staff attended one Mason County Public Works mycoremediation project meeting. Mason County Public Health, Mason County Public Works, Mason County Utilities and the Mason Conservation District are working to make sure all stormwater implementation projects in the area complement each other. Staff is providing some assistance on water quality issues related to stormwater. This quarter additional mycoremediation sites and research needs were discussed.

Staff participated in writing a grant application to address unmet mycoremediation research needs. Initial testing of mycoremediation shows a promising reduction of fecal coliforms but we do not know if pathogenic organisms would have similar reductions. The proposal involves bench scale mycofiltration with a recirculating "stream" for direct pathogen testing in a laboratory setting. The organisms tested would be bacteria, viruses and protozoa and would be selected based on potential for resistance to treatment using mycoremediation. We have partnered with Scott Meschke at the University of Washington to propose this project. It was felt to be important to propose this research given the efforts by the Mason Conservation District to start the approval process for mycoremediation as a new Best Management Practice for fecal coliform pollution.

MCPH attended a sampling coordination meeting with Squaxin Island Tribe and DOH.

Staff also attended two all staff meetings, three environmental health meetings and two water Quality/On-site meetings.

Staff attended one Squaxin Island Tribe's Western Estuary project meetings and provided information about the progress of a septic riser and effluent filter rebate program that has been developed for the Oakland Bay area. The addition of risers and effluent filters to older septic systems will make O & M easier and/or add a feature that will help maintain healthy septic system function. One rebate was issued this quarter.

Task 2-District Development

MCPH asked the Oakland Bay Committee to designate alternate members this quarter. The new alternate members were added to the membership roster. The nominations for alternates still need to be approved by the Board of the Oakland Bay Clean Water District. It is anticipated that approvals will happen in May. MCPH participated in developing or distributing advertisements for additional members. Advertisements

will go in the Chamber of Commerce newsletter and the Oakland Bay Watershed newsletter. Changes to the by-laws that make in possible to have excused absences in addition to the number of absences already allowed were approved by the committee this quarter.

Task 3-Identifying On-site Sewage System Sources

Carol Spaulding was trained to become primary field person in the Oakland Bay Area. Carol was formerly our lab specialist and has done water quality fieldwork in the past. The lab was closed at the end of last quarter, resulting in reduced staffing to the water quality program since water quality staff are now responsible for doing all lab work associated with sampling. On-site staff will start assuming some of the water quality sampling duties in order to better distribute workload.

Figure 1 All shoreline and stream sample locations

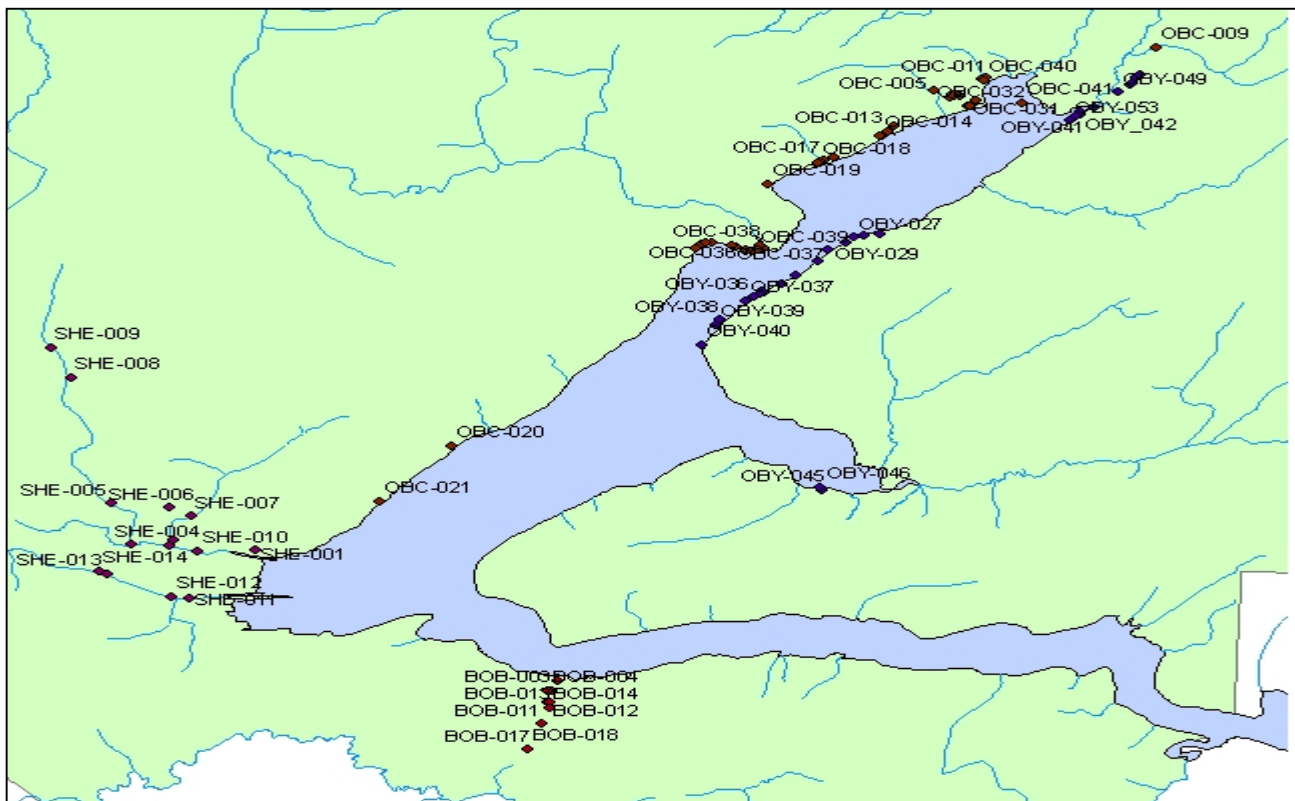


Figure 2- Yellow section sampling



Shoreline sampling for most of the yellow section was wrapped up in 2008. At the request of the Squaxin Island Tribe additional sampling along Gosser Road will be done monthly through the summer. Sampling at a mycoremediation site on the south shore of Chapman Cove has also commenced as through another grant.

Table 1 Quarterly results for the yellow section (in FC/100 mL)

Site		Geometric Mean	# samples	3/2/2009	03/19/09	03/24/09
				calc	calc	calc
OBY-016		7.00	1		7	
OBY-045		4.00	2	2		8
OBY-046		10.20	2	8		13
OBY-047		2.00	1		2	
OBY-048		1.90	1		1.9	
OBY-049		2.00	1		2	
OBY-050		2.00	1		2	
OBY-051		17.00	1		17	
OBY-052		1.90	1		1.9	
OBY-053		1.90	1		1.9	

No results are above the 100 FC/mL limit set in the QAPP. When a shoreline survey sample and a confirmation sample are above 100 FC/mL permission to do a sanitary survey of the upland area is sought.

Figure 3- Upper Cobalt Section Sampling

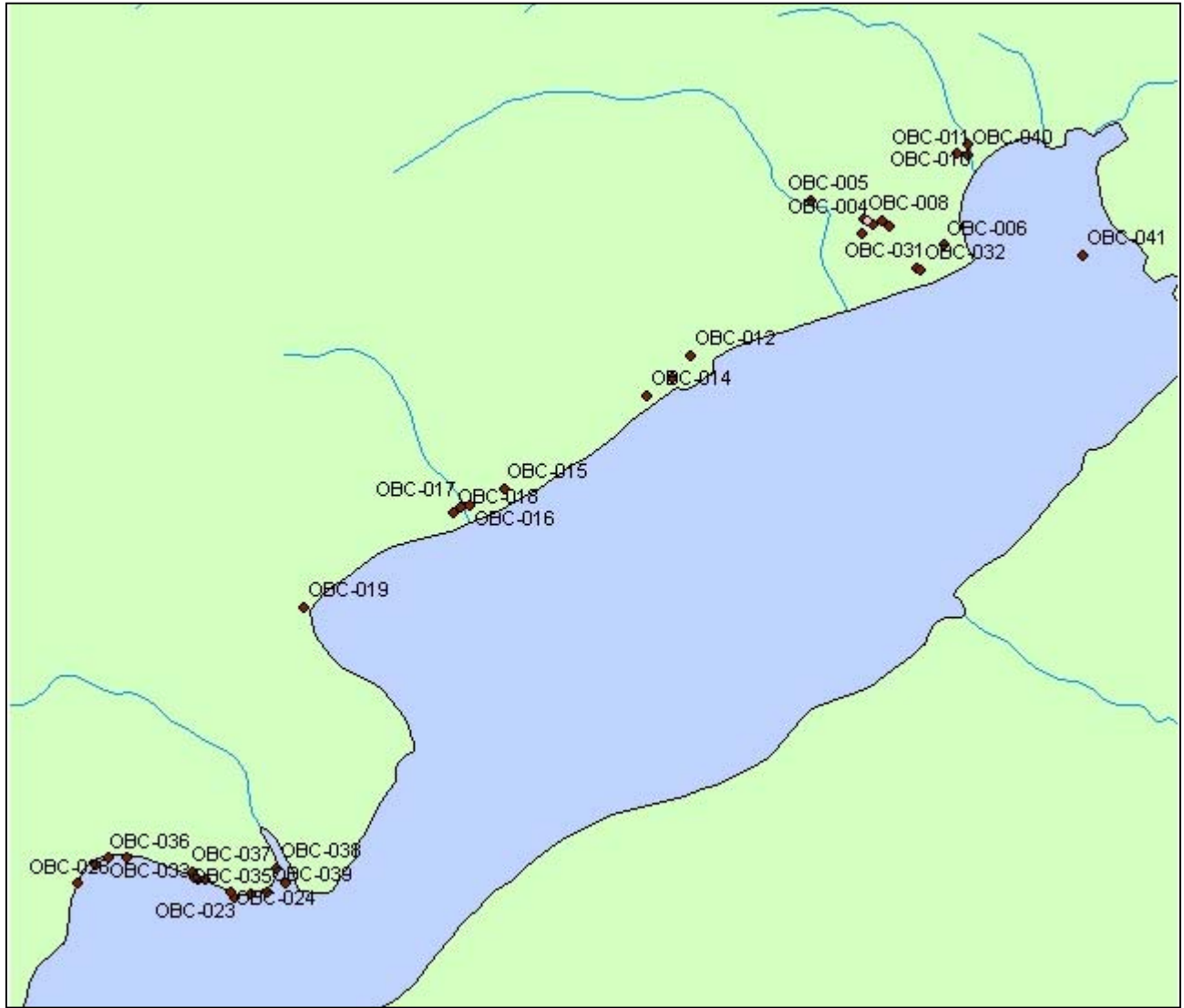


Table 2- Quarterly results for the Cobalt Section (in FC/100mL)

Site		Geometric Mean	# samples	02/12/09	03/17/09	03/19/09	03/24/09
				calc	calc	calc	calc
OBC-006		11.00	1			11	
OBC-012		50.00	1			50	
OBC-031		80.00	1				80
OBC-032		80.00	1				80
OBC-033		2.00	1	2			
OBC-034		1.90	2	1.9	1.9		
OBC-035		1.90	2	1.9	1.9		
OBC-036		2.00	1	2			
OBC-037		1.90	1		1.9		
OBC-038		240.00	1		240		
OBC-039		11.00	1		11		
OBC-040		11.00	1			11	
OBC-041		3.00	1			3	

One result is above the 100 FC/mL limit set in the QAPP. A confirmation sample for site OBC-038 will be taken next quarter. If the confirmation sample is also high permission for a sanitary survey will be sought. One septic failure was found in the Bayshore area. No high results sample results were found at the beach below the failure. Repairs are in process.

Figure 4- Shelton sampling sites

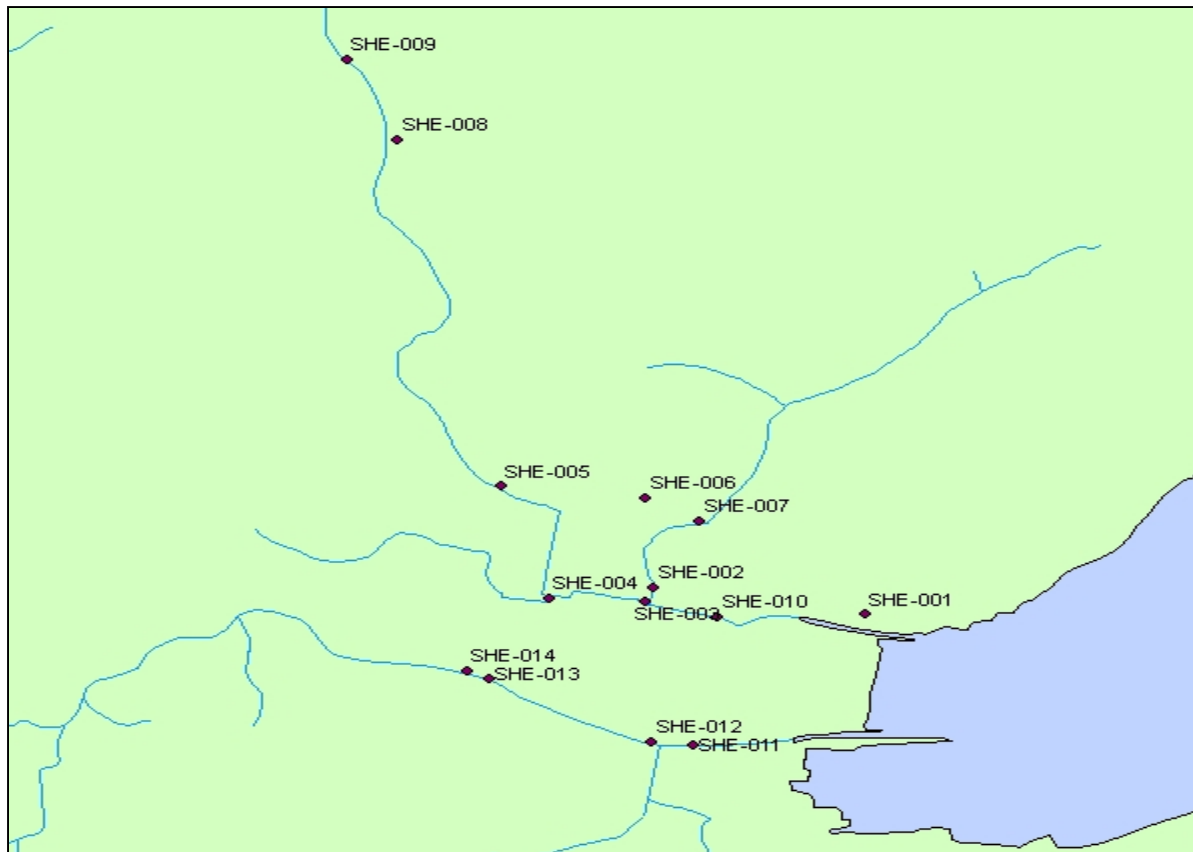


Table 3 Quarterly results for the Shelton Area (in FC/100mL)

Site	Geometric Mean	# samples	01/28/09	01/29/09	02/19/09	03/16/09
			calc	calc	calc	calc
SHE-002	6.21	3	2		4	30
SHE-003	8.20	3	3		8	23
SHE-004	16.39	3	8		11	50
SHE-005	1.97	3	1.9		2	2
SHE-006	20.47	3	30		13	22
SHE-007	4.23	3		1.9	1.9	21
SHE-008	1.95	2		1.9		2
SHE-010	17.19	3		13	17	23
SHE-011	8.89	3		2	13	27
SHE-012	11.21	3		8	8	22
SHE-013	5.92	3		2	8	13
SHE-014	9.08	3		4	17	11

No results are above the 100 FC/mL limit set in the QAPP

Figure 5- Walker Park Sample Sites



Table 4 Quarterly results for the Walker Park Area (in FC/100mL)

Site		Geometric Mean	# samples	03/11/09
				calc
BOB-001		4.00	1	4
BOB-002		2.00	1	2
BOB-003		4.00	1	4
BOB-004		2.00	1	2
BOB-005		2.00	1	2
BOB-006		1.90	1	1.9
BOB-007		1.90	1	1.9
BOB-015		1.90	1	1.9
BOB-011		1.90	1	1.9
BOB-012		1.90	1	1.9
BOB-013		1.90	1	1.9
BOB-014		2.00	1	2
BOB-016		2.00	1	2
BOB-017		1.90	1	1.9
BOB-008		1.90	1	1.9
BOB-009		1.90	1	1.9
BOB-010		2.00	1	2

No results are above the 100 FC/mL limit set in the QAPP .One dye trace was started in the Walker Park area this quarter.

In summary, during the first year of the Oakland Bay MRA grant the shoreline survey work was focused on the upper end of the bay, from Bayshore north on the west side and all shoreline development above Chapman cove on the east. We have been pleased with our progress. During the second year, while some project work continues in the upper area along Hwy 3, Ecler and Gosser Rd. the shoreline sample focus will be more on the middle section, roughly from Bayshore through Walker Park on the west side and Chapman cove to Miller Point on the east side. The residential shoreline of lower Hwy 3 will be sampled next quarter.

Task 4 -Water Quality Education-

Submitted by Emily Sanford, WSU

**Mason County Public Health and Mason County Extension
“Oakland Bay Education and Outreach”
January – December 2009**

1st Quarterly Report (Jan. 09 – Mar. 09)

PARTNER – Agrees to:

- a. Provide to MCPH on a quarterly basis an invoice for their share of salary and benefits contribution.
- b. Provide to MCPH on a quarterly basis task reports on quarter progress. These reports will be due March 2009, June 2009, September 2009 and December 2009.
- c. Tasks and Activities are to include but are not limited the following:

- ***Research-based assistance and education to residents in the form of outreach at community events in collaboration with MCPH:***
 - Staff attended a planning meeting for Earthday outreach events in collaboration with Olympic College Shelton and Mason County. There will be educational materials related to Oakland Bay at two community events during the week of April 20th and a Shoreline Living Workshop for residents on Sunday April 26th. In preparation for these community events staff is working on making a new publication to advertise the Friends of Oakland Bay Website.
- ***In collaboration with MCPH Mason County Extension will also provide a minimum of six Septic System Operation and Maintenance Workshops- in 2009.***
 - Two On-site Septic System Operation and Maintenance Workshops have been conducted with Mason County Public Health (January 26th and March 23rd). A total of 32 residents participated.
- ***Mason County Extension will continue facilitation of the Oakland Bay Shellfish Closure Response Education and Outreach Subcommittee. Activities associated with this will include but are not limited to: organization of community events, displays, and media coverage, coordination with community partners and the incorporation of social marketing techniques into public involvement and education programming.***
 - One Education Sub-Committee meeting was held on March 4th, facilitated by Extension staff. Two meetings related to the social marketing research / campaign were held (Jan 15th, and March 15th) These meetings, initiated by the Squaxin Island Tribe were attended by staff.
- ***Mason County Extension will work with the Water Resources Education for Real Estate Professionals and the Native Plant Salvage Project based at Thurston County Extension to bring a minimum of one Shoreline workshop to this area in 2009.***
 - A Shoreline Living Workshop is currently scheduled (as previously mentioned) for Sunday April 26th with Erica Guttman of the Native Plant Salvage Project presenting.
- ***Mason County Extension will compile content and coordinate with the Mason County Webmaster to expand, link, and market the Oakland Bay Clean Water District Website.***
 - Staff has coordinated with the Mason County Webmaster to add a comment box feature so that viewers of the website can ask questions and provide feedback. This is linked directly to staff email who will field comments and answer questions.
 - Staff is currently working with the Mason County Webmaster to design a web button which can be placed on the various organization websites involved in the Clean Water District that will link back to the Oakland Bay Website. This will help to encourage more traffic on the site.
- ***Mason County Extension will work with the Mason County Journal to develop relevant and interesting newspaper articles to educate residents about water quality issues and what they can do. These articles may focus on local history, natural history or local economic importance.***
 - This was discussed in some details at the February Advisory Committee Meeting and a few members of the committee had said they would approach community members to see if there was any local interest in taking on a regular column. At the Education Sub-committee meeting we also discussed the possibility of using the social marketing research and forthcoming campaign to design a couple of advertisements to use in the paper. This is a work in progress.