

McLane Cove Shellfish Protection District

A committee of citizens, business and government is launching a plan to:

- **Reduce water pollution**
- **Meet state and federal water quality standards**
- **Ensure that water quality standards are maintained**

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This document is also available online at:

http://www.co.mason.wa.us/health/environmental/water_quality/pickering-passage.php

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Definitions of Acronyms

DOH- Washington State Department of Health

ECY- Washington State Department of Ecology

MC- Mason County

MCD- Mason Conservation District

MCPH- Mason County Public Health

NEP- National Estuaries Program

NHD- National Hydrography Dataset

NSSP- National Shellfish Sanitation Program

QAPP- Quality Assurance Project Plan

Septic O & M- Septic system operation and maintenance

SPD- Shellfish Protection District

SIT- Squaxin Island Tribe

SPD- Shellfish Protection District

A. Purpose of the McLane Cove Shellfish Protection District

Background

In May 2015 Washington State Department of Health downgraded 31 acres in the Pickering Passage Growing Area (McLane Cove) from Approved to Conditionally Approved. This classification change is in response to Marine Station 57 in McLane Cove failing the National Shellfish Sanitation Program (NSSP) water quality standards for Approved classification. The Conditionally Approved classification means that harvest of shellfish is not allowed under certain conditions. For McLane Cove 0.75 inches of rainfall in 24 hours will trigger a 5 day closure. Rainfall data is collected at the Taylor FLUPSY in Oakland Bay.

A Shellfish Protection District program is required to be put in place after a growing area classification is downgraded.

RCW 90.72.045 -The county legislative authority shall create a shellfish protection district and establish a shellfish protection program to address causes of pollution within one hundred eighty days after the department of health, because of water quality degradation due to ongoing nonpoint sources of pollution, has, after June 11, 1992, closed or downgraded the classification of a recreational or commercial shellfish growing area within the boundaries of the county.

Mason County Public Health developed this Shellfish Protection District, in cooperation with a stakeholders group of those affected by the McLane Cove downgrade, to provide leadership, planning and foster collaborations in improving the water quality of McLane Cove.

Who is involved?

- The citizens of Mason County (list of committee members http://www.co.mason.wa.us/health/environmental/water_quality/pickering-passage.php)
- Mason County Shellfish Growers
- Squaxin Island Tribe
- Washington State Department of Health
- Washington State Department of Ecology
- Mason Conservation District
- Washington State University- Mason County Extension
- Washington Sea Grant Program, University of Washington
- Mason County Public Health

B. Background information and history

Description of the McLane Cove watershed

McLane Cove is a small embayment at the northeast end of Pickering Passage. Pickering Passage is located in the South Puget Sound region and extends from Case Inlet in the North to Peale and Squaxin Passages and Hammersley Inlet at the southern end. This waterway has a swift current at maximum flood and ebb, flushing the passage rapidly. Depths are around 100 feet in the north end of the passage near McLane Cove. McLane Cove is mostly shallow intertidal zone with some depth at the entrance. The embayment receives weak flushing from Pickering Passage. There are 6 unnamed streams in the area, three of these streams appear in the NHD stream list, and maps, and at least 3 are perennial (two NHD and one unlisted). One of the perennial streams has been named McLane Creek in previously Department of Health reports and has been variously categorized within the reports as seasonal or perennial. The area has traditionally supported clams and oysters harvest. The drainage area of these streams has been used to define the McLane Cove Clean Water District. See Figure 1.

Figure 1- McLane Cove Shellfish Protection District

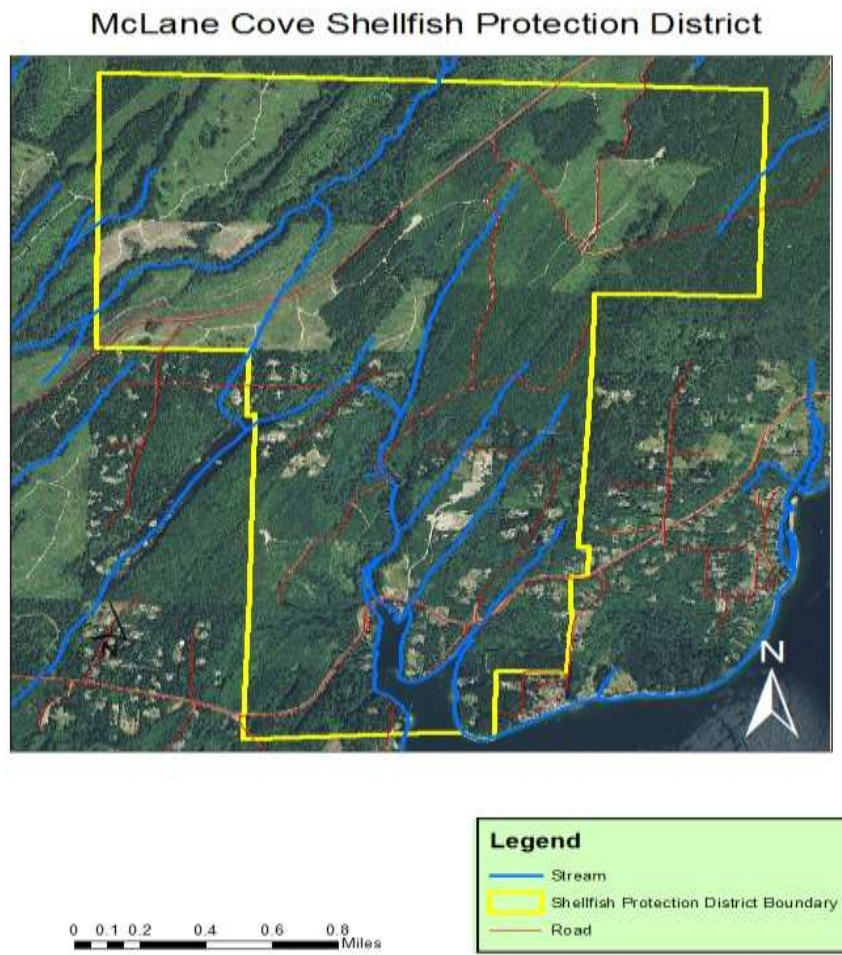
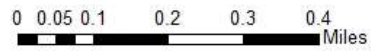
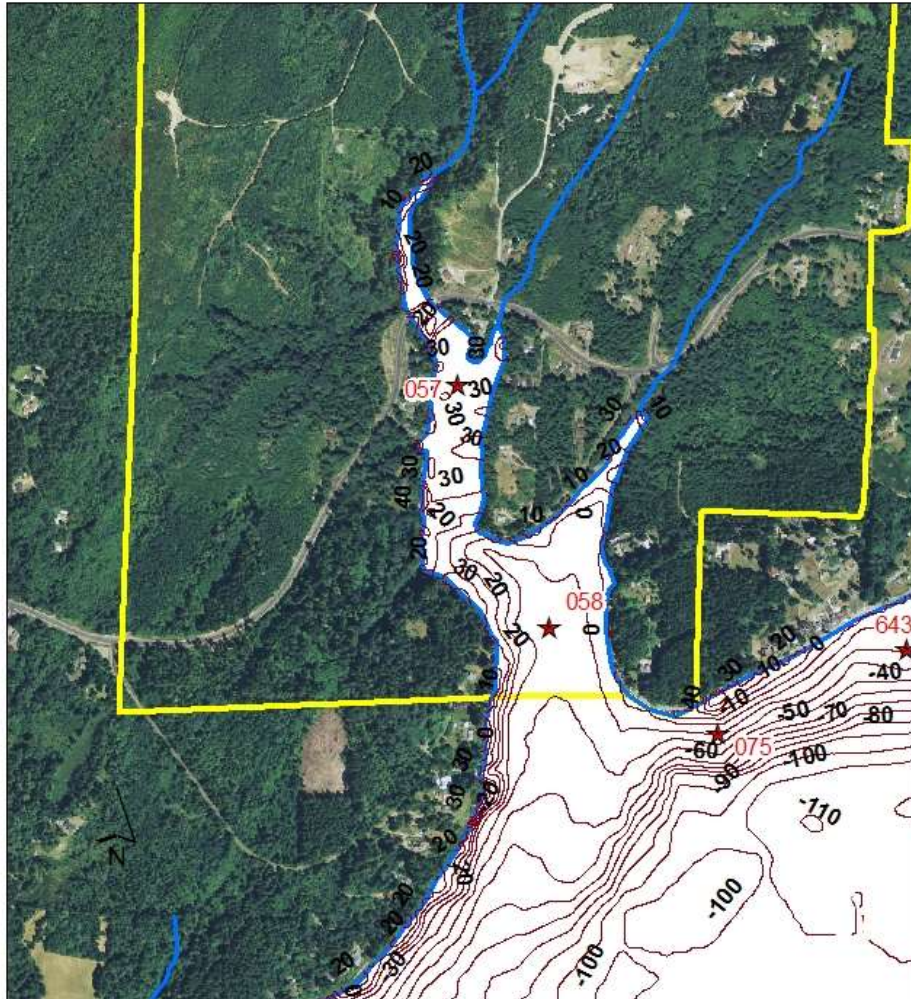


Figure 2- McLane Cove Bathymetry



Growth and development

Development on the shoreline and upland is expanding. The 1990 shoreline sanitary survey noted 16 residential sites, currently about 30 residential sites are in roughly the same area. Of one hundred seventy-seven lots in the shellfish protection district; 37% are residential lots, 42 % are undeveloped and 21 % are timberland.

History of Shellfish Harvesting and Water Quality in McLane Cove

Pre-1989- A shoreline survey refers to the water quality of this timeframe as pristine.

1989 (April) A water quality study shows elevated fecal coliform levels especially on ebbing tide. Samples are taken at marine stations 10 and 11.

1990 (January) A rain event water quality study shows elevated fecal coliform levels.

1990 *Shoreline Sanitary Survey of McLane Cove* found potential sources of untreated fecal pollution entering McLane Cove from farm animals. The classification remains Approved. The approved area is a 7.5 acres site later referred to as McLane Cove North.

1996- (November) *Triennial Reevaluation McLane Cove* finds that agricultural practices have been improved. The 7.5 acres remain categorized as Approved.

2002-(December) *Shoreline Survey of McLane Cove* published. At this point the marine stations have been relocated. The new stations are 57 and 58. From the survey it can be surmised that a request to expand growing area has been made to DOH. The survey identified Site 14 (the mid-cove point) as a (new) area that should not be approved for harvest without more sampling.

2005- (December) *Annual Growing Area Review* categorizes station 57 as Threatened.

2006- (October) *Shoreline Survey of Pickering Passage Shellfish Growing Area* published. Marine station 57 does not meet water quality standards. Since there is no upland development at the time, the document concludes that if the creek is the assumed source, then the sources are likely wildlife.

2007- The McLane Cove portion of the growing area (47 acres) is Conditionally Approved (1/2 inch rainfall).

2008- 2011 The water quality improves. With an assumed wildlife source no specific water quality improvement actions are taken beyond an educational mailing informing residents of Septic O & M requirements.

2010-2012 Grapeview Loop road improvement project alters drainage of road to McLane Cove.

2011- Area reclassified as approved.

2012- Marine Station 57 threatened.

2014 (December) Station 57 fails to meet water quality standard.

2015 (May) The McLane Cove growing area (31 acres) is downgraded to conditional approval (3/4 inch rainfall).

Figure 3- Rolling Estimated 90th Percentile of Marine Station 57 in McLane Cove over time

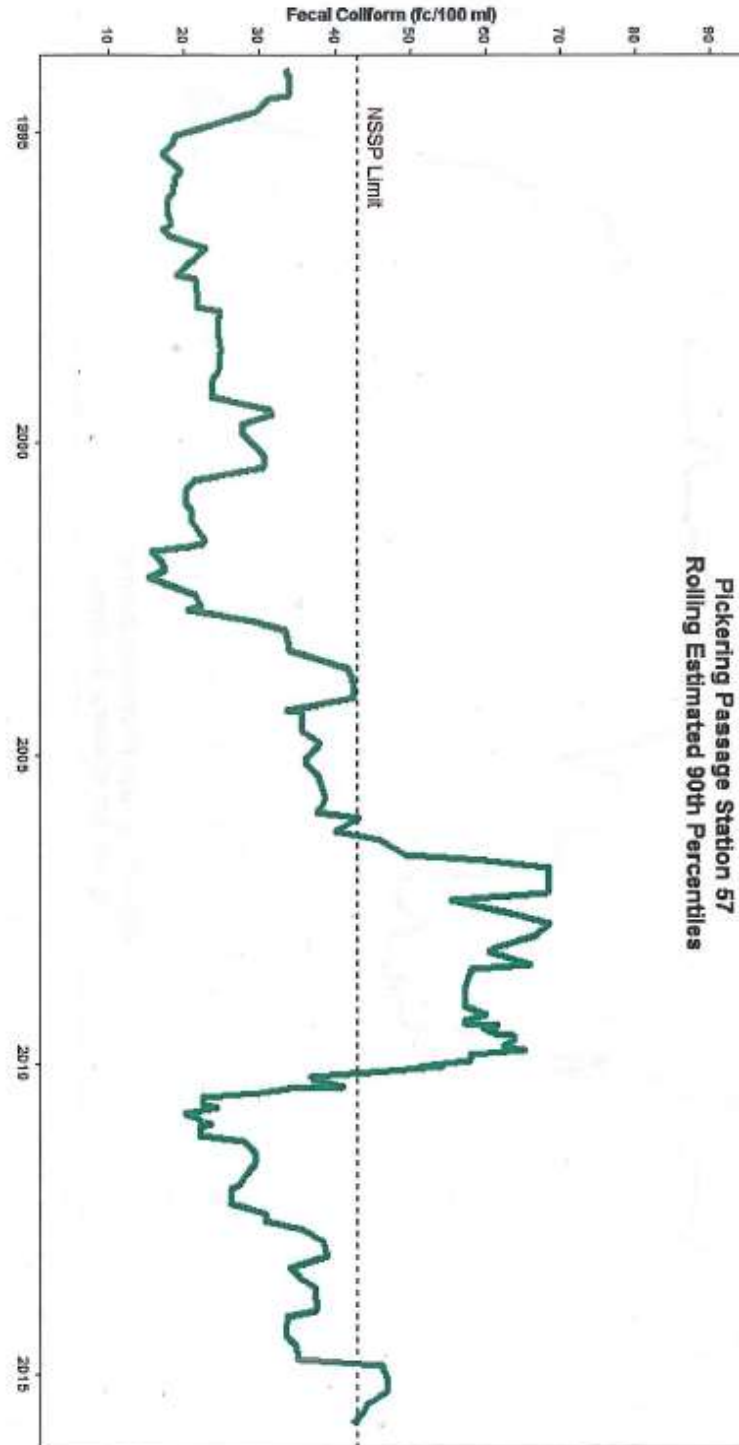


Figure 3 shows the water quality at Station 57 compared to the NNSP Limit. The calculation is “rolling” because it is based off of the most current 30 samples. It is “estimated” because data is variable. A 90th percentile means that 90 % of the sample results are below that number and 10 % are above. McLane Cove currently (April 2016) sits right at the limit.

C. Strategy for water quality improvement

Goal: To take immediate steps to:

- **Reduce water pollution**
- **Meet state and federal water quality standards for commercial shellfish**
- **Ensure that water quality standards are maintained**

Tasks

1. Identify accountable agencies, create a shellfish protection district advisory team
2. Identify the boundary of the McLane Cove SPD, create a map
3. Create a Draft Closure Response Plan (by Feb 2nd, 2016)
4. Ordinance creating SPD adopted by Commissioners (by Feb 2nd, 2016)
5. Monitor McLane Cove
6. Identify Agriculture sites, referral to MCD for correction
7. Monitor On-site sewage systems
8. Enforcement
9. Identify other non-point water quality contamination sources. Develop strategies to correct.
10. Identify Land Use needs in the area
11. Review tasks yearly and update or change as needed
12. Educate area residents

McLane Cove Shellfish Protection District Matrix

Task	Subtasks	Lead group/agency	Participating groups/agencies	Deliverable	Progress	Due date	Date accomplished	Comments
1. Identify accountable agencies and create a SPD advisory team.	Identify	MCPH					done 2/16/16	
	Set date for first meeting	MCPH					done 2/16/16	
	Agree upon representation, agree upon governance	SPD Committee	All				By-laws adopted 3/17/16. Committee formed 3/17/16.	
	Adopt by-laws. Create membership list.	SPD Committee	All	By-laws, committee list	Committee list in progress, alternates needed.		By-laws adopted 3/17/16	
2. Identify the boundaries of the McLane Cove SPD, create map.	Identify drainage area	MCPH					Done 2/09/16	
	Take map to Commission for adoption	MCPH		map			Resolution 08-16 passed 2/9/16	
3. Create a Draft Closure Response Plan	Create first draft	MCPH					2/16/2016	
	Review and revise drafts with Advisory Committee Meeting	MCPH	All		On-going at monthly SPD meetings.			
	Bring draft to vote, approve final version.	MCPH	All			May-16		
	Take final version to Commission.	MCPH	All			Jun-16		
4. Ordinance creating SPD adopted by Commissioners	Take draft ordinance to commissioners for approval	MCPH					Resolution 08-16 passed 2/9/16	

Task	Subtasks	Lead group/agency	Participating groups/agencies	Deliverable	Progress	Due date	Date accomplished	Comments
5. Monitor McLane Cove	DOH will collect marine samples monthly	DOH		Data set	ongoing	10/30/2017		Collecting samples at old locations as well?
	Mason County and DOH will coordinate stream sampling with Marine Sampling	DOH/MCPH		Data set	starting July 2016	10/30/2017 (end of grant)		Funding will be released after SPD plan is approved.
	Mason County will sample bulkhead and shoreline seeps- wet and dry season sampling	MCPH		Data set	starting July 2016	10/30/2017 (end of grant)		Funding will be released after SPD plan is approved.
	Sampling at major inputs during storm events???	MCPH?	citizens	1. List of sites complied with help from citizens @. Data sets for minimum of 3 storm events.	unfunded			Funding should be discussed when sampling funding is released
	Train sampling volunteers???	MCPH?	citizens		unfunded			Pros and cons to volunteer sampling. Assess funding first. Check with grant officer about paying for samples collected by volunteers. WQ specialist preferred if budget allows.

6. Identify Agricultural sites, referral to MCD for correction	Financing to MCD for conservation plans	MCPH	MCD		MCD would like this, need to check into.			
	Reporting	MCD						Conservation plans information can be shared. Farm plans are confidential.
	Post correction sampling	MCPH						

Task	Subtasks	Lead group/agency	Participating groups/agencies	Deliverable	Progress	Due date	Date accomplished	Comments
7. Monitor On-site sewage systems	mailings	MCPH			Summer/Fall 2016 or Summer 2017	10/1/2017		
	incentives	MCPH			Summer/Fall 2016 or Summer 2017	10/1/2017		
	Evaluations (surveys and dye traces)	MCPH			Summer/Fall 2016 or Summer 2017	10/1/2017		
	As-built creation	MCPH			Summer/Fall 2016 or Summer 2017	10/1/2017		
	Post correction sampling	MCPH			Summer/Fall 2016 or Summer 2017	10/1/2017		

8. Site Investigation Coordination	Group of agencies, who would potentially follow up after a water quality problem has been identified, will meet quarterly or as needed to discuss and coordinate follow up work.	SIT						
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Task	Subtasks	Lead group/agency	Participating groups/agencies	Deliverable	Progress	Due date	Date accomplished	Comments
9. Identify other non-point water quality contamination sources. Develop strategies to correct	seal haul out- track population	Citizens- Rick Bell volunteer coordinator	Citizens/ Sea Grant/ DFW	1.monthly seal count 2 samples from dock when seals present and absent	July 2016 to end of grant	10/1/2017		
	seal haul out- move dock	seal haul out- move dock						Seals are present May- October and high counts are in the wet season so seals presence doesn't really match with highs. Wait to see haul out sampling results and shoreline sampling results before making decision on whether the owner of dock should be asked to remove the dock .
	Raccoons	MCPH		Site visit to Frontier Rd- find the raccoon feeder and education. Follow up letter.		Summer 2017		
	Other wildlife- coyotes, etc							respond as needed

Task	Subtasks	Lead group/agency	Participating groups/agencies	Deliverable	Progress	Due date	Date accomplished	Comments
10. Identify land use needs in the area	Investigate the effect of growth on water quality in the area. Investigate what build-out would be. Make recommendation(s) on whether or not planning interventions are needed to protect water quality.	Mason County Community Services Department	all	Visual history of build out		Feb-17		
11. Review tasks yearly and update or change as needed.		All	All			Annually in June		
12 Educate area residents	Send out update to all developed property when the SPD plan is approved	WSU?		1 page mailer or equivalent	funding?	Summer 2016		
	Septic O & M class at Grapeview Fire Station	WSU?			funding?			
	Shore friendly stewardship Class	MCD						
	Have educational booths at Grapeview water festival for Water Quality/ Septic/Shoreline Stewardship	MCPH, WSU and MCD			funding?			Check with Grapeview Water Festival (Patty Hanson-Grapeview Fire)