

Jefferson County Clean Water District

ANNUAL REPORT



Figure 1. Quilcene Bay. Photo by Jacquelyn Stenman

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Reporting Period: January 1 - December 31, 2018

Name of Shellfish Protection District: Jefferson County Clean Water District

Name of County: Jefferson

Primary Point of Contact: Michael Dawson, Water Quality Manager

Number of Meetings in 2018: 3

1 FUNDING

The Jefferson County Clean Water District (CWD) is funded by a \$20 per-parcel fee assessed by the Jefferson County Assessor. In calendar year 2018, the Water Quality department of Jefferson County Public Health (JCPH) received \$406,022 from the CWD fee, which was used primarily as matching funds for Clean Water Projects. The Water Quality department has continued to pursue the pollution identification and correction (PIC) strategies outlined in the 2012 Clean Water District Advisory Council recommendations. These include pursuing grant funding for Clean Water Projects. This strategy allows district funds to be leveraged with state funds for projects.

The following Clean Water Projects were active during this reporting period (Figure 2):

1. Quilcene-Dabob Pollution Identification and Correction Project
2. Central Hood Canal Pollution Identification and Correction Project
3. Strait Priority Areas Project
4. Northern Hood Canal Pollution Identification and Correction Project
5. Oak Bay – Mats Mats Pollution Identification and Correction Project

Each of these projects was funded at 75% from Ecology's Centennial Clean Water program with a 25% match requirement provided by the CWD fee. The Quilcene-Dabob PIC, Central Hood Canal PIC, and Strait Priority Areas projects were conducted all year in 2018. The Northern Hood Canal PIC and Oak Bay – Mats Mats PIC projects began in September 2018. During 2018, the Quilcene-Dabob PIC project received \$92,778 in state funding matched with \$35,869 in CWD funds. The Central Hood Canal PIC project received \$82,221 in state funds matched with \$32,521 in CWD funds. The Strait Priority Areas project received \$110,872 in state funds matched with \$34,178 in CWD funds and \$6,154 in Jefferson County Conservation District (JCCD) funds. Although grant agreements for Northern Hood Canal and Oak Bay – Mats Mats PIC projects were signed in 2018, invoicing began in 2019 so no revenue was collected in 2018.

Program administration and management, public complaint

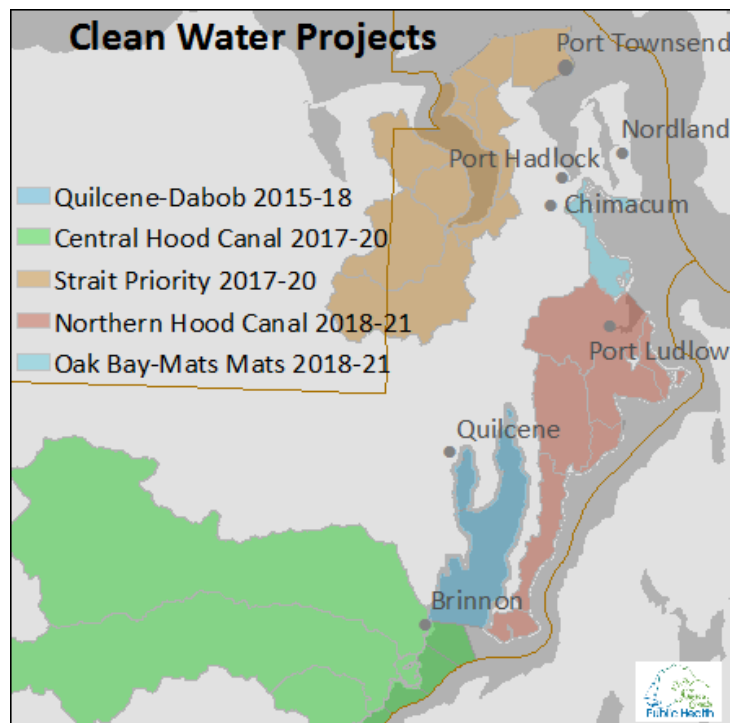


Figure 2. Water Quality Project Area Map, 2018

investigation, water quality hot spot response and PIC work outside of current project areas was funded by CWD funding. Temporary sanitation was provided at the Big Quilcene River during fishing season in 2018 to avoid emergency closures to shellfish beds.

2 PROGRAM STATUS/CHANGES

The [Quilcene-Dabob PIC](#) project continued through 2018 with marine monitoring being conducted. Stream monitoring was completed in 2017 and shoreline monitoring continued with high hit follow-up sampling. Investigations of high hits continued, and 55 septic system surveys were completed. Project lead Alisa Hasbrouck left employment and was replaced by Environmental Health Specialist Tim Weissman. A time extension of three months was granted by Ecology to help with the transition. JCCD continued planning for an agricultural BMP implementation above a Donovan Creek tributary hot spot. An extensive coccolithophore bloom was again observed in Quilcene and Dabob bays in the summer. A brief flood event caused turbidity in the Little Quilcene River, but did not have widespread effects.

The [Central Hood Canal PIC](#) project continued in 2018 and a primary task involved responding to the downgrade of the Duckabush portion of the Hood Canal #3 shellfish growing area. A [Closure Response Plan](#) was finalized in March 2018. Marine, stream and shoreline monitoring was conducted. Four hot spots were confirmed and investigations initiated. Septic system surveys were targeted around hot spots, and in the Duckabush River floodplain. Dye tests were conducted at several sites. Three repairs were completed and several sites had decommissioning of pit privies and graywater discharges. Project lead Anna Bachmann met with homeowners associations to discuss the project goals and hear concerns about land use constraints in the Duckabush area.

In 2018, stream, marine and shoreline monitoring was conducted in the [Strait Priority Areas](#) project. Stream monitoring was divided between JCPH and JCCD. EPA offered to analyze samples for microbial source tracking at no cost to the county, and so extra samples were sent to Manchester Lab for analysis with results expected in 2019. JCCD completed an agricultural survey of the Salmon and Snow Creek watersheds and presented results to JCPH. Jefferson County Marine Resources Committee sponsored the deployment of a Mussel Watch cage in Discovery Bay, with assistance from JCPH. Results from Mussel Watch are anticipated in 2019. A confirmed hot spot in Maynard resulted from a pump failure in a large on-site system. The pump failure was corrected and bacteria results returned to normal. Septic system surveys around a hot spot in Gardiner did not find a failure, however one nearby residence was vacated and bacteria levels declined. The site continues to be monitored.

Quality Assurance Project Plans (QAPP) were submitted for the Northern Hood Canal PIC and Oak Bay – Mats Mats PIC projects in 2018. No water quality monitoring took place until 2019.

In addition, the Water Quality department was engaged in other projects that did not receive Clean Water District funding such as the Hood Canal Regional PIC project, Lakes Cyanobacteria Monitoring, Shellfish Biotxin Monitoring, the BEACH program, and WA Department of Health-funded projects in cooperation with the Jefferson County Environmental Health On-site Septic division.

3 PROGRAM SUCCESSES

Total acreage of approved shellfish growing areas in the CWD was maintained in 2018. Thirteen growing areas totaling more than 18,000 approved acres in Jefferson County remain in excellent condition. Some small acreage gains were seen in 2018 as a result of reclassification by DOH due to the No Discharge

Zone implementation. A threatened area in Discovery Bay did not decline to a downgrade, with water quality results showing a slightly improving trend in 2018.

Jefferson County finalized a decision on the replacement of an aging permit database utilized by multiple programs, including On-site Septic and Water Quality. Development of the new database began in 2018 with a “go-live” date anticipated in 2019. The new database should allow greater efficiency of property research for conducting septic system surveys, and will also be better connected with the county enterprise GIS. New opportunities to utilize mobile devices with the new database will be explored, with the possibility of conducting septic system surveys and code compliance investigations on iPads in the field.

Jefferson County submitted a Puget Sound Partnership Near-Term Action proposal for the implementation of a septic repair cost-share program and was ranked high. Funding is anticipated in 2019.

4 CHALLENGES/BARRIERS

Long range planning by JCPH in 2017 identified potential gains in efficiency by moving towards a consolidated project approach when seeking funding through the Centennial Clean Water program. As such, a Foundational Monitoring project proposal was submitted to Ecology in 2017 and approved for funding in 2019. The goal is to reduce the amount of staff time spent on grant management when compared with the current practice of multiple similar projects being conducted simultaneously. Multiple grant projects require similar and somewhat duplicative efforts, such as multiple QAPPs. Implementation of the new model will still be difficult given the existing grant projects that will be underway through 2020 and partially into 2021. Therefore careful planning will need to be done to ensure that, as current projects are concluded, the Foundational Monitoring program expands to cover all areas of the Clean Water District. While the Foundational Monitoring project will provide for consistent and unified monitoring, additional grant funding may be needed for PIC work including the time-intensive efforts of tracking site correction work from initial discovery through compliance and code enforcement, financial assistance, repair permitting, installation and case completion. JCPH has also planned a joint Water Quality/On-site Septic staff position for 2020 to help coordinate such activities.

5 POLLUTION CONTROL IMPLEMENTATION TABLE

SPD Information	Number	Outcomes	Comments
Miles of shoreline evaluated	57	230 E. coli, 40 enterococci, 26 fecal coliform samples analyzed during wet and dry seasons	Quilcene-Dabob PIC: 2 miles Central Hood Canal PIC: 20 miles Strait Priority Areas: 35 miles
Discharges/streams monitored	32	3 Hood Canal sites failed WA fecal coliform standard 12 Salmon & Snow sites failed	Central Hood Canal PIC: 14 stations Strait Priority Areas: 18 stations
Marine stations monitored	38	All stations met WA fecal coliform standards	Quilcene-Dabob PIC: 16 stations Central Hood Canal PIC: 16 stations Strait Priority Areas: 6 stations
Sites with elevated bacteria or "hot spots"	14	Confirmed hot spots > 320 E. coli geomean or > 110 entero investigated	Quilcene-Dabob PIC, 0 hot spots, 14 sites w/high hits followed-up with resampling Central Hood Canal PIC, 4 hot spots Strait Priority Areas, 10 hot spots
Parcel/property evaluations	218	226 sites contacted with project information	Quilcene-Dabob PIC, Central Hood Canal PIC, Strait Priority Areas
OSS in the Shellfish Protection District	~13,500	58 previously unknown OSS identified	Distributed copies of as-builts if available, homeowner class info, rebate info, and Craft3 and USDA financial assistance
OSS with current inspection report	14%	1,874 O&M inspections completed (293 from homeowners)	On-site Septic program
O&M warning letters	1,324	O&M reminder letters mailed	On-site Septic program
OSS dye tests	3	Dye tests negative	Central Hood Canal PIC
Failed OSS	41 (217 O&M deficiencies)	60 urgent repairs finaled 27 urgent repair permits issued & pending	41 determined through septic surveys

SPD Information	Number	Outcomes	Comments
Low interest OSS repair loans (Craft3 or other)	11	\$333,276 total loan value 1,007,400 gal wastewater treated	6 low-income households
Farms with animals in the Shellfish Protection District	Unknown		Strait Priority Areas Salmon & Snow watersheds: 17
Surveillance flights	None		
Farms evaluated	111	19 high priority sites identified by JCCD 1 Quilcene hot spot referred to JCCD for tech assist	Quilcene-Dabob PIC, Strait Priority Areas
Agriculture BMPs installed	1	8 in progress	Strait Priority Areas
Agriculture warning letters	None		
Utilized new source tracking technology	Yes	EPA MST utilizing new reference library, results expected 2019	Strait Priority Areas
Incentives/Rebates	47	1 st O&M inspection and/or riser installation rebates to homeowners	Hood Canal Regional PIC: 38 (\$6,450) Other Jefferson County (On-site program): 9
Penalties	55	OSS failure/violation NOCVs sent	Quilcene-Dabob PIC, Central Hood Canal PIC, Strait Priority Areas, and On-site Septic program
Public Meetings	3		Clean Water District Advisory Council
Workshops	6	445 class participants educated (140 in-person, 305 online)	Homeowner Septic Classes (On-site program)
Community Events	5	Information booths, interactive watershed model, water quality demonstrations & presentations	Digging for Dinner shellfish events (w/MRC, WDFW): 2 Port Townsend Wooden Boat Festival (w/WDFW, DOH) All County Picnic WSU Beach Naturalists/Watershed Stewards class: 1
Mailers/flyers/brochures	1	Hot spot factsheet to project area residents	Central Hood Canal PIC

SPD Information	Number	Outcomes	Comments
Did you conduct a social marketing survey?	No		
Newsletters sent	2	Mailed to project area residents	Additional JCCD newsletters sent
Letters of support/ recommendations to council/commission/grants received	None		
Are there stormwater activities occurring?	Yes	Shared water quality data with MRC to help guide decisions about where to locate stormwater retrofit projects	Strait Priority Areas, downtown Port Townsend shoreline monitoring
Riparian restoration	Yes	Duckabush & Big Quilcene Floodplain Acquisitions	Conservation Futures program
Septic and water quality complaints	90	87 cases closed	
Reports	2	Posted on JCPH website	
Data/Mapping	Yes	WQ mapping on 6 iPads via Portal	

6 ACRONYMS AND SPECIAL TERMS USED

CWD	(Jefferson County) Clean Water District	PIC	Pollution Identification and Correction
DOH	Washington State Department of Health	SPD	Shellfish Protection District
Ecology	Washington State Department of Ecology	WSU	Washington State University (Jefferson County Extension)
EPA	Environmental Protection Agency	WQ	Water Quality
GIS	Geographic Information System		
JCCD	Jefferson County Conservation District		
JCPH	Jefferson County Public Health		
MRC	(Jefferson County) Marine Resources Committee		
O&M	(Septic) Operations & Maintenance		
OSS	On-site Septic Systems		