



Pollution Identification & Correction Program

2017 Annual Report

Skagit County's Pollution Identification and Correction (PIC) Program is a partnership between state and local agencies, tribes, local non-governmental organizations, shellfish growers, and private citizens. Skagit County is the lead agency for the program. We are dedicated to protecting the public from waterborne illness by reducing the levels of fecal bacteria in the rivers and creeks of Skagit County. The PIC Program has been operating since 2010, and has successfully reduced bacterial pollution in several watersheds in Skagit County.

Water quality monitoring is the core of any PIC Program. Traditionally, sampling sites are identified near the confluence of streams and are monitored on a regular basis. Where high levels of fecal bacteria are found, source identification sampling (sometimes referred to as "bracket sampling") occurs upstream to identify where the pollution is coming from. Staff then follow up by visiting nearby property owners to identify the source of pollution, and work with property owners to correct any problems that are found. Common sources include pets, leaking septic systems, livestock such as horses, cows, and pigs, and wildlife.

Thanks to our partnerships with other organizations, we are able to offer resources to property owners who may have problems on their property that need to be solved. With the help of partners like the Skagit Conservation District, the Skagit County Public Health Department, and Skagit Fisheries Enhancement Group, we can offer low interest loans and grants for septic system repairs or replacements, free and confidential farm assessments by trained farm planners, assistance with farm management, and financial assistance for fencing, invasive plant removal, native plantings, and other projects.

A graphic representation of all aspects of the PIC Program is presented in Figure 2.

Areas of focus

The Samish Bay watershed has been the major focus of the PIC Program since its inception (Figure 3). Over 4,000 acres of commercial shellfish beds are located in Samish Bay. Shellfish are filter feeders and can accumulate fecal bacteria and other pollutants that can make people sick.



A PIC staff member samples Friday Creek at Donovan Park.

Skagit County Pollution Identification & Correction Program

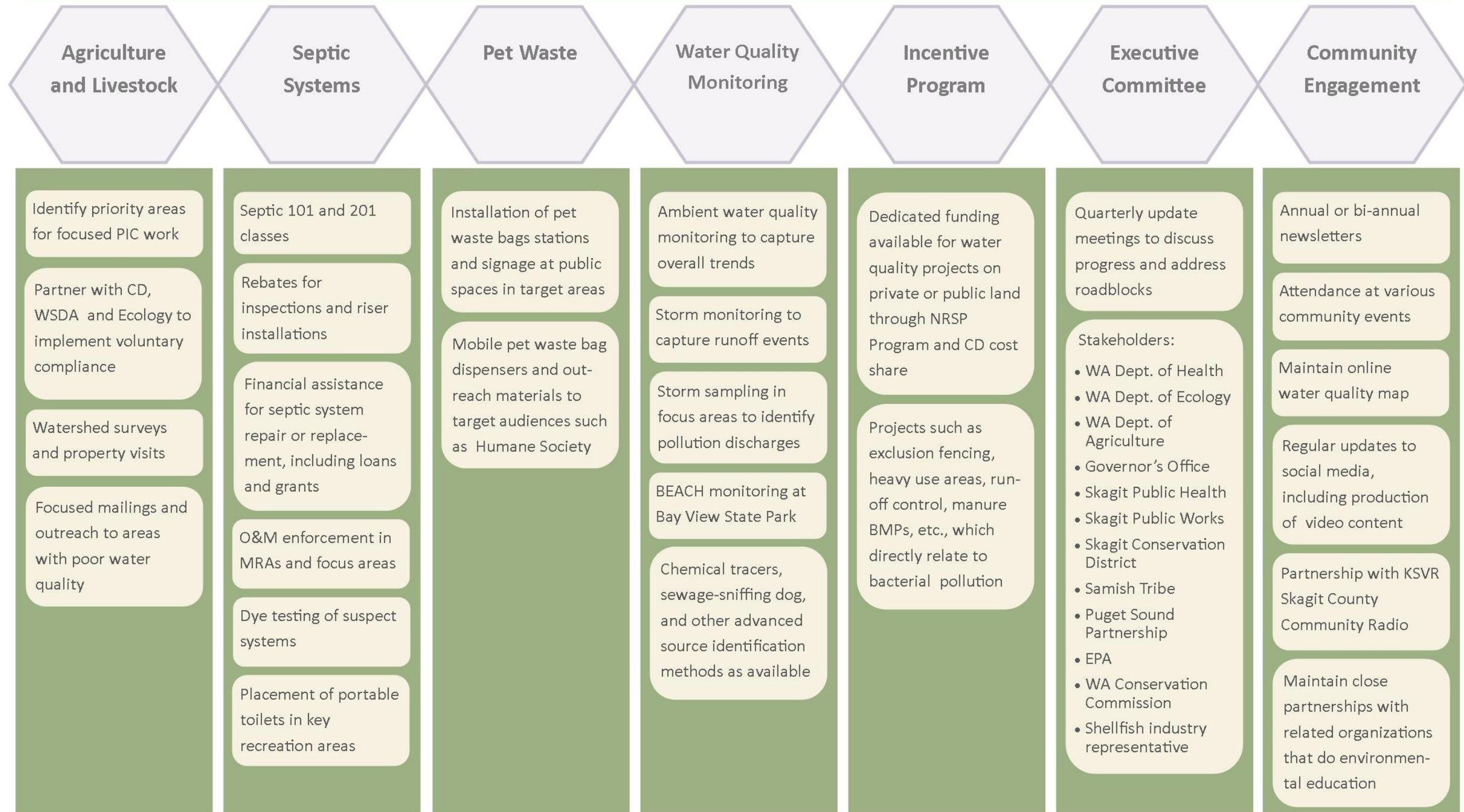


Figure 2. Skagit County's PIC Program



Figure 3. The Samish Bay watershed to the north, and the Padilla Bay watershed in darker blue to the south.

In the fall of 2009, the Washington State Department of Ecology (Ecology) completed a study on fecal coliform pollution in Samish Bay, along with a plan for reducing the level of bacteria. The PIC Program has been working to implement that plan since 2010. The Samish River and its tributaries continue to be a major focus of the program.

In 2015, the program expanded to include the Padilla Bay watershed. The Padilla watershed includes 151 acres of commercial shellfish beds, along with a popular beach at Bay View State Park that was regularly closing every summer due to water polluted by fecal bacteria.

The PIC Program also responds to reports of problems throughout Skagit County as time and resources allow.

Progress in 2017

Skagit County and its partners identified potential livestock problems on 36 properties in Skagit County (see Table 1). Most problems were found on small, non-commercial farms. The most common problems found in all watersheds are livestock being kept on saturated pastures, poor pasture conditions that lead to runoff, the need for better manure collection and storage, and the need for heavy use areas.

Table 1. Summary of livestock properties identified in 2017 and their progress towards a fix

Watershed	Number of new properties identified	Number of properties fixed or cleared	Number of new properties working with Conservation District
Samish Bay	18	14	2
Padilla Bay	9	5	3
Nookachamps Creek	4	2	2
Skagit River	5	2	1
Total	36	23	8

In addition to the new properties identified in 2017, a significant amount of time was spent on following up on properties identified in previous years. It can take several years to solve the problems on large properties or properties with many problems, even when the property owner or livestock operator is responsive and motivated.

During 2017, Skagit County's Onsite Septic Program sent inspection reminders to the owners of over 2,800 septic systems that were overdue for inspection in Marine Recovery Areas (areas especially sensitive to failing septic systems), as well as other areas with documented water quality problems. Many areas had septic systems that had not been inspected in more than 10 years. Due to

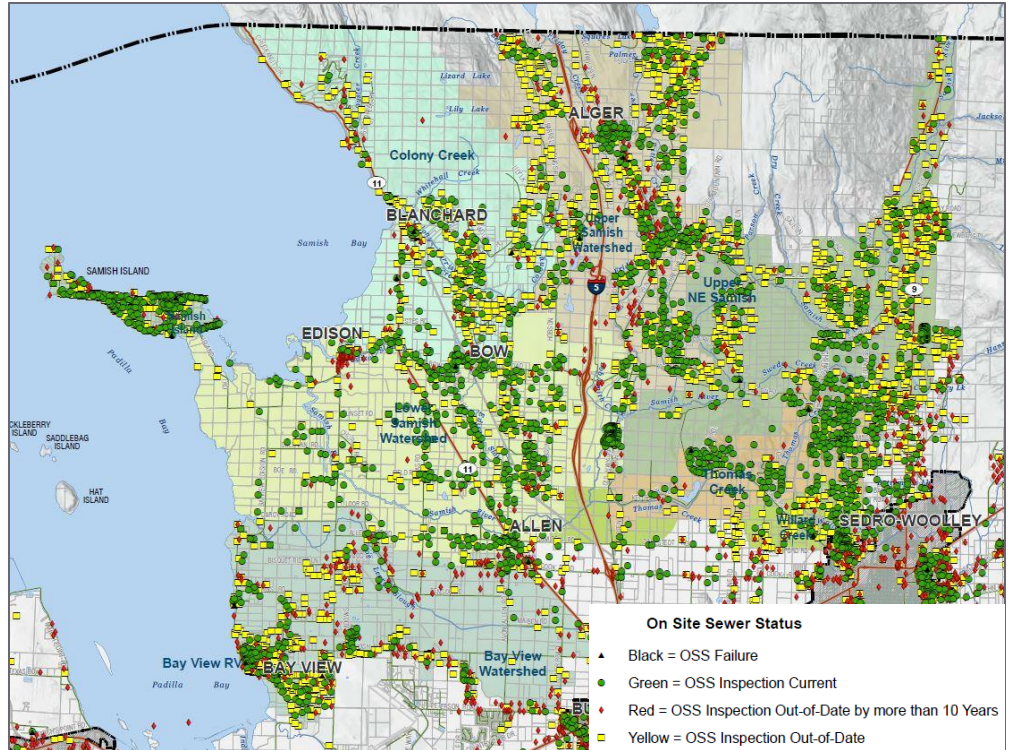


Figure 4. Samish and Padilla watershed inspection status map, produced in July 2017.

this increased enforcement of septic inspection regulations, 52 failed septic systems with surfacing sewage were discovered in Skagit County, and an additional 84 deficiencies were discovered that could lead to failure if not corrected. Sixty-five septic systems were repaired or replaced in the county during 2017 (Table 2). Note that these numbers are only for repairs requiring permits. Many more small repairs were completed in 2017 that did not require permits and or reporting to Skagit County.

Table 2. Onsite septic system permitted repairs or replacements in 2017

Area of interest	Number of repairs
Samish Bay	17
Padilla Bay	7
Greater Skagit County	41

When PIC Program partners suspect high levels of bacteria are caused by a septic source, we refer suspect properties to the Septic Program for further evaluation. In 2017, staff from the Septic Program performed 13 investigations and/or dye tests as part of their evaluations. Twelve of the investigations and dye tests were in the Samish watershed.

Education & Outreach

Education and outreach is a major part of our PIC Program. Skagit County Clean Water staff manage Facebook and YouTube social media pages, regularly talk with local news outlets, send regular mailings,

and attend events throughout the county to get the message out about clean water. We also work with other organizations such as Skagit Fisheries Enhancement Group, Coastal Volunteer Partnership, Skagit Conservation Education Alliance, Washington State University Extension, and Taylor Shellfish to ensure that our messages get out in as many ways as possible. Quarterly meetings are held with our education and outreach partners to foster collaboration on messaging to the public.

During 2017, the PIC Program attended six events such as the Skagit River Salmon Festival and Mount Vernon Science Night. We co-hosted an outreach event focused on our water quality issues with Coastal Volunteer Partnership called Dine and Discover at Bay View State Park that was attended by nearly 200 members of the public. In addition, newsletters were mailed to approximately 6,300 residents in the Samish and Padilla watersheds.

Through a great partnership with the Washington Department of Agriculture and Whatcom County, state and local agencies can now share their fecal coliform water quality results on a single online map. Skagit County began sharing our data on the map in November 2017. The map has revolutionized our ability to visualize the data, and has also been an excellent public outreach tool.

When we realized that some problems we are finding are coming from newly purchased properties, we began a campaign of outreach to local realtors to make sure that those who are looking to buy property are informed about potential pollution and other risks of the property before they buy. We created business cards that realtors could hand out to potential buyers with contact information for a variety of county and Conservation District programs that would be useful to homebuyers, and delivered them to realtors in Skagit County. One agency requested that we attend one of their staff meetings to update their staff about the problem. We also created and promoted two videos for social media about what to look for when buying property, both for building and for livestock uses.

Two additional videos were created for our social media pages on the topics of our Natural Resources Stewardship Program and good sanitation practices by fishers. In total, our videos were viewed by over 11,000 people. With the help of videos, sponsored posts, and constant news feed management, our social media following increased by 39% in 2017.

In a new partnership with KSVR, our local community radio station, we recorded four public service announcements reminding listeners of the importance of inspecting septic systems, picking up dog poop, and managing spring pastures. In addition, we continue to stock pet waste bags at 10 pet waste stations around the Samish watershed.

In late 2017, we began a grant-funded project with PRR, a social marketing consultant, to evaluate our outreach offerings and assist us in developing campaign materials and a strategic outreach plan for the next several years. The consultant identified several gaps in our program, the largest of which is a comprehensive digital offering online. During 2018, we will be working with PRR to develop a campaign that will enhance our online presence with a dedicated website and offerings on social media.