



Hood Canal Coordinating Council

Hood Canal Regional Pollution Identification and Correction Program

Phase II Outreach and Education: 2016 Site Visit Report

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Authors and Contact Information

Bob Simmons, simmons@wsu.edu
WSU Jefferson County Extension
380 Jefferson St.
Port Townsend, WA 98368
(360) 379-5610

Darcy McNamara, WSU Jefferson County Extension
Erica Bates, WA Dept. of Ecology (formerly with WSU Extension)
Wendy Mathews, Active Consulting

Research conducted and report written by: Washington State University Extension



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This report and the final project report will be available on the Hood Canal Coordinating Council website: www.hccc.wa.gov

Introduction

This educational outreach project was initiated to work directly with landowners to reduce fecal coliform and associated contaminants in the Hoodsport, Union and Tahuya areas of Hood Canal. The project was part of the overall Hood Canal Regional Pollution Identification and Correction Program (HCRPIC) and built upon work conducted as part of the Focused Watershed Outreach and Model Stewardship Project that was conducted by Washington State University Extension and the Washington State Conservation Commission between 2014 and 2015. HCRPIC coordinators participated in the 2014-2015 project to develop similar social marketing outreach projects and to produce robust results for both projects despite short timelines by utilizing the information developed and lessons learned.

These projects were implemented to promote selected Best Management Practices (BMPs) for improving water quality. The BMPs were:

- Inspect septic systems (as recommended by the appropriate local county agency) and complete repairs as needed
- Pick up, bag, and dispose of dog (and cat) waste in the garbage
- Install vegetation to absorb and filter water
- Collect, contain and cover livestock waste

The 2014-2015 project targeted priority areas within 250 feet of freshwater and marine shorelines in Burley Lagoon, Rocky Bay, Vaughn Bay, Hoodsport and Union. Audience research was conducted to understand target audience barriers, benefits, and motivators for agreeing to a water quality advisor site visit, and to get audience reactions to various ways of describing and communicating about the pilot stewardship project (Simmons, et. al., 2017a).

Throughout 2015, landowners were offered site visits through letters, postcards, an event booth, and door knocking to help solve contaminant and runoff issues on their properties. Site visits were shown to be an effective way of conveying best practices. Success was measured by increased knowledge of the BMPs. Door knocking resulted in more site visits than other means of contact, as reported in the *Focused Watershed Outreach and Shore Stewards Joint Final Report* (Joy, et.al., 2015).

The HCRPIC outreach project builds on earlier work by focusing on landowners in Hoodsport and Union who did not respond to contact methods used in 2015 outreach efforts. In addition, the North Shore area of Tahuya was included. The purpose of this outreach project was to gather audience research information to design and implement effective outreach methods and to encourage adoption of BMPs by landowners in Hoodsport, Union, and the North Shore area of Tahuya. This phase of the project occurred in 2016 and was funded by a grant from the Washington Department of Health through the U.S. Environmental Protection Agency's National Estuary Program.

Background

In an earlier project, WSU Mason County Extension and the Mason Conservation District offered site visits to landowners in the Hood Canal Shellfish Growing Area #6 during the summer of 2015. Within

Hood Canal #6, the population centers of Hoodspout and Union were selected, focusing on properties within 250 feet of Hood Canal and its tributaries for outreach. Letters were sent to invite landowners to call and schedule a site visit. Landowners who did not respond to the letters were then approached by door knocking: 371 residences were door knocked from mid-March through June 2015. Of those that were home at the time, 22% agreed to have a site visit, which represented 35 parcels. Site visits began and ended with a survey to measure the change in landowner knowledge of the BMPs.

At the end of the first phase of the project, phone interviews with 24 of the site visit recipients were conducted to get feedback on their experience. Responses were generally positive and provided a qualitative profile of a successful site visit. Notable lessons included: the length of some site visits were too long, too much information at one time, the most effective site visits were conducted by two staff members – one from WSU Mason County Extension and one from the Mason Conservation District, and the handouts were helpful. Although septic systems were discussed thoroughly, recipients did not remember “fecal coliform,” but did have a good grasp of “pollution” sources.

Building on the 2015 project, this outreach approach was planned again for 2016 with the incorporation of lessons learned from the past surveys and staff input, as well as additional audience research. This data was used to improve communication techniques and continue to implement and improve outreach with the landowners that did not respond in 2016.

Methodology

In preparation for outreach efforts in the summer of 2016, WSU Extension carefully reviewed the Focused Watershed Outreach and Model Stewardship Project methodology and results from 2015, as well as conducted two new phone interview surveys to gather feedback from landowners. The first survey solicited feedback from a sample of the landowners who had a site visit in 2015. Sixteen landowners participated in interviews that were designed to gain information about their experiences with their site visit, what they remembered of the BMPs, whether they’d applied what they had learned, and the barriers to implementation. The results of these interviews are reported in the *Hood Canal Regional Pollution Identification and Correction: Outreach and Education Project 2016 – Supplemental Evaluation of 2015 Site Visits* (Simmons, et. al., 2017b). The other survey was conducted with landowners who did not participate in the 2015 project. The survey took place in the Hoodspout and Union target areas to find out how landowners would like to be contacted, their current knowledge of pollutant sources, their sources of information for water quality BMPs, and their likelihood of accepting the offer of a site visit. The findings from these interviews are found in the *Hood Canal Regional Pollution Identification and Correction Audience Research Report* (Simmons, et. al., 2017a).

Combined with lessons learned during the 2015 project reported in *Focused Watershed Outreach and Shore Stewards Joint Final Report* (Joy, et.al., 2015), landowner feedback was taken into consideration when planning and implementing 2016 outreach efforts. Although both surveys found that door knocking was not favored as a method of contact, results from 2015 showed it to be the most successful method when compared to survey favorites: letters, phone calls and post cards. Native plants were

again selected to offer as incentives to participate in the site visits based on staff's 2015 experience and feedback from site visit recipients.

Aside from monetary and physical assistance, site visit recipients said that more information and follow-up would help them implement the recommended BMPs.

The 2015 outreach materials were also reviewed and adaptations were made based on audience research. This included a more comprehensive written summary of recommendations to leave with the landowner that included a resource list for each recommendation with the website and phone numbers of relevant supporting technical assistance organizations (See example in Appendix 1).

A newsletter for Hoodspport was created (Appendix 2), and a "Sorry we missed you" card (Appendix 3) for Union and North Shore. These communication materials were designed to be left at residences where no one answered the door, or to be left for the landowner if they were not present (if a renter or visitor answered the door). The newsletter contained an update on Hoodspport water quality conditions; and both the newsletter and the postcard gave a brief description of the outreach project and contact information to request a site visit.

The landowners selected to receive door knocking were those in Hoodspport and Union who did not respond to any contact methods used in 2015 outreach. In addition, the North Shore area of Tahuya was targeted for door knocking. The Hoodspport and Union areas included both shoreline and upland properties on or within 250 feet of Hood Canal shorelines or its tributaries. Only North Shore properties on the shoreline of Hood Canal were included, primarily due to the topography of the area.

After filtering out non-residential and undeveloped properties using the Mason County Assessor's on-line database, 464 addresses were identified for door knocking.

Door knocking to invite landowners to participate in site visits was scheduled for July and August to reach holiday populations later in the summer. Site visits were completed by August 18, 2016.

Landowners who agreed to a site visit were advised on three important BMPs selected from the 2015 project:

- Inspect septic systems, as recommended by the appropriate local county agency, and complete repairs as needed
- Pick up, bag, and dispose of dog waste in the garbage
- Install vegetation to absorb and filter water

A fourth BMP from 2015 to "collect, contain and cover livestock waste" was dropped due to few landowners with livestock in the area.

Since the audience research showed stormwater was a large concern, recommendations were developed and offered to solve stormwater issues such as erosion, wet areas, slope stability, and negative impacts on onsite sewage systems on landowners' properties. During the site visit, water quality improvement were shown to be connected to stormwater, pet waste, and septic management, and emphasis placed on how landowners could help reduce fecal coliform and other pollution entering Hood Canal and its tributaries. Landowner packets, containing pertinent educational information and resources, were provided (Appendix 4).

Surveys were conducted during each site visit to measure the landowners' change in awareness of the BMPs (Appendix 5). The surveys were based on those used in the 2015 project. Survey questions regarding livestock were not included as there were no farms identified in the target areas.

Findings and Analysis

Combined Target Areas Results

Of the 464 residences identified for door knocking, 402 were viable addresses and 119 (30%) residents answered the door and were offered a site visit. Thirty-four (29%) of them agreed to a site visit and 19 (56%) of the site visits were completed.

Overall, 30% of residents answered the door with a high of 43% in the Hoodspport Upland area and a low of 20% in the Hoodspport Shoreline area (Table 1). Although the Hoodspport Shoreline had the lowest number of residents answering the door they had the highest percentage of interest in a site visit (67%). Among the remaining areas, an average of 31% were interested in a site visit. The Hoodspport and Union Upland residents had the highest rates of completing site visits (75% of those interested), and the Union Shoreline had the lowest follow through (33%). The highest percentage of completed site visits based on total doors knocked were Union Upland and North Shore (6%).

Table 1 - Comparison of site visit results across all areas

Area	Total properties in area	Doors knocked on	Answered door - heard offer	Interested in site visit	Completed site visit (% of those expressing interest)	Potential Interested but haven't scheduled visit	% of completed site visits based on total doors knocked on	% if all those interested completed site visit
All areas combined	542	402	119 (30%)	34 (29%)	19 (56%)	15	2%	8%
Hoodspport All	157	137	42 (31%)	14 (33%)	7 (50%)	7	5%	10%
Hoodspport Shoreline	88	74	15 (20%)	10 (67%)	4 (40%)	6	5%	14%
Hoodspport Upland	69	63	27 (43%)	4 (15%)	3 (75%)	1	5%	6%
Union All	201	138	40 (29%)	7 (18%)	4 (57%)	3	3%	5%
Union Shoreline	121	88	24 (27%)	3 (13%)	1 (33%)	2	1%	3%
Union Upland	80	50	16 (32%)	4 (25%)	3 (75%)	1	6%	8%
North Shore	184	127	37 (29%)	13 (35%)	8 (62%)	5	6%	10%

In addition to completed site visits, the focus BMPs were conveyed by other means and were labelled "potential" site visits (15). Opportunities arose for the BMPs to be discussed when:

1. The owner said ‘no’ to a site visit (8), but:
 - Proceeded to discuss the property’s issues to the extent that the BMPs were casually discussed (uncounted), or
 - Proceeded to discuss the property’s issues to the extent that, in effect, a site visit occurred but no survey was conducted (i.e. an “unofficial” site visit (8)).
2. The owner said ‘yes’, he/she was interested in a site visit (15 potential), and
 - Called to schedule a site visit (committed (9)), or
 - Could not foresee a time when they would be available (uncommitted (6))

If all the potentially interested residents completed site visits the completion rates could be as high as 14% in Hoodspport Shoreline with an average completion rate of 8%.

Attempts to contact landowners were made at all 464 properties. Attempts were not made at 62 properties because they were undeveloped or were otherwise inaccessible (such as a locked driveway gate). Newsletters (Hoodspport Water Quality Update) and “Sorry we missed you” cards were left at 283 residences where no one answered. Information was left with non-owners such as visitors or renters, and at a locked gate if it was not visible from the road. The newsletters and cards were designed to get people to call and sign up for a site visit. These materials are available in Appendices 2, 3, and 5.

A total of 137 Hoodspport Water Quality Update newsletters were distributed as follows:

- 95 to Hoodspport residences where the owner was not home/unavailable.
- 42 were also given to homeowners that were home (including those interested and not interested in a site visit).

A total of 188 "Sorry we missed you" cards were distributed to Union (98) and North Shore residences (90) where the owner was not home or unavailable.

Hoodspport Target Area Results

The Hoodspport Target Area included properties on the shoreline from Finch Creek Road to the south end of Potlatch Road. Upland areas were on drainages above this segment of the shoreline, as far west as Suncrest Drive off Lake Cushman Road.

There were 144 properties in this area that had not responded to contacts made in the 2015 project (Joy, et. al., 2015), or were non-residential or undeveloped. Of those, there were 95 residences where the owner was not home, and seven that were undeveloped properties or inaccessible at the time of door knocking. Site visits were offered to 42 landowners, 28 of whom were not interested. Fourteen landowners expressed an interest in a site visit, but only seven agreed to walk their property with the WSU Clean Water Advisor; four landowners completed the pre- and post- site visit surveys. Some landowners did not complete the post-survey because they preferred to have the follow-up site visit before forming their opinions.

In both the shoreline and upland areas of Hoodspport, 31% of the residents answered the door, 33% were interested in a site visit, and 50% of those completed a site visit (Table 1).

Hoodsport Shoreline

While only 22% of the residents in the Hoodsport Shoreline area were home and answered the door in this area, 67% agreed to a site visit and 40% of them completed the site visit (Table 1).

Of the 81 Hoodsport shoreline properties door-knocked, 59 owners were not home and seven properties were either undeveloped or inaccessible. Three landowners completed site visits, and one completed a partial site visit because she could not be scheduled for the follow-up visit with the Mason Conservation District engineer. Two landowners completed survey forms.

Two landowners (one representing two properties) expressed an interest in a site visit and said they'd call to schedule (potential site visit). One landowner said she'd call after Labor Day, and one said she'd call after speaking with her husband about scheduling. Neither called to schedule a site visit.

Three other landowners said they'd be interested in a site visit, but responded "not now." Another landowner said she was not interested in a site visit, but walked the property in order to ask about what to plant on a slope that receives a lot of runoff. During these conversations, the target BMPs were discussed and pertinent information sheets were provided.

Hoodsport Uplands

In the Hoodsport Uplands area, 43% residents answered the door and 15% agreed to a site visit with 75% of those completing a site visit (Table 1).

Site visits were offered to 27 landowners who answered the door; 23 said they were not interested in a site visit. Three landowners agreed to a site visit, two at the time of door knocking and one scheduled for later. All three completed a walk around their properties to point out areas of concern. One survey form was completed and two preferred to wait until after the follow-up.

A fourth landowner was designated "potential site visit" because the property is a hobby farm; the landowner said he would be interested in having the Small Farms specialist from the Mason Conservation District help find solutions, but was not sure he'd make the call.

Three other landowners who declined a site visit continued to discuss their properties. One pointed out some erosion, but also listened to information about the potential fecal coliform contamination that may be entering her property from the two goats pastured upslope. One landowner lived on the edge of a very steep drop-off to a grassed slope and a seasonal pond and discussed securing his slope, pruning rather than topping his trees for a view, and his dog's contribution to fecal coliform. The third landowner was not able to understand the conversation regarding her onsite sewage system.

Union Target Area Results

The Union Target Area included shoreline properties from just east of the Olympic Vista community to just west of McReavy Road at SR 106. The Alderbrook Resort lies within this area. Upland areas on

drainages to Hood Canal included the more densely populated neighborhoods on and off of McReavy, Dalby, Country Club, and Olympic Vista roads.

Of the 201 properties in the Union target area, 42 non-residential or undeveloped properties were removed from the list, leaving 159 non-respondents to 2015 outreach efforts. Upon door knocking, 21 properties were found to be non-residential or undeveloped, and the owner was not home at 98 residences. Forty landowners answered their doors, 33 were not interested in a site visit, and seven expressed an interest in a site visit. Four landowners completed site visits, two chose to conduct the site visit upon door knocking, one scheduled a site visit during door knocking, and one called to schedule a site visit in response to a “sorry we missed you” card. Three landowners completed survey forms, and one preferred to fill out the form after follow-up.

In the Union area, 29% of the residents answered the door, 18% were interested in a site visit and 57% of those completed a site visit (Table 1).

Union Shoreline

In the Union Shoreline area, 27% of the residents answered the door, 13% were interested in a site visit and 33% of those completed a site visit (Table 1).

Of the 103 Union shoreline properties door knocked, 64 owners were not home and 15 properties were either undeveloped or inaccessible. Of the 24 that were home, three landowners expressed an interest in a site visit. One landowner completed a site visit and the pre- and post-survey. The second landowner had responded to the Audience Research letter and had said in an email that she would like to have a site visit. However, she was not one of the first 15 respondents and her request was not noticed until later.

The third landowner did a partial walk through of the upland side of his shoreline property. One of the BMPs discussed was the family’s management of a significant drainage that had been diverted at a 90 degree angle to flow along the upslope end of his property. This results in very wet land below the diversion and the drainfield is located where it is susceptible to groundwater flooding. The owner said he’d be interested in a complete site visit and would call to schedule one, but did not.

Two other landowners were interested but did not complete site visits. However all three proceeded to walk their properties discussing the BMPs. Two of those said they would call for a site visit but did not. These two parcels had significant issues.

One landowner was concerned about SR 106 crumbling along the beach side of the road. She pointed out a small but year-round drainage that passed very near her house. The quality of this water (from which she withdrew drinking water) was discussed, and she listened to the benefits of planting a buffer to filter and absorb contaminants. She understood that her septic system was in a very small space with only a ditch between it and the highway, but when she was advised to have an inspection in addition to pumping, she said she was careful enough that it was not a problem. This landowner said that she would

agree to a site visit if her neighbor would. The neighbor subsequently declined a site visit because she felt her property had no issues.

Union Uplands

In the Union Uplands area, 32% of the residents answered the door, 25% were interested in a site visit and 75% of those completed a site visit (Table 1).

Of 56 Union Upland properties door knocked, 34 owners were not home and six properties were either undeveloped or inaccessible. Sixteen landowners were home; 12 said they were not interested in a site visit. Three of the landowners who said they were interested lived in the Olympic Vista community near the top of a very steep and considerably deep drainage ravine. Two completed a site visit. One agreed to a site visit at the time of door knocking, one scheduled a date upon door knocking, and the third called to schedule in response to a “sorry we missed you” card. Two site visit recipients completed pre- and post-surveys and one preferred to wait until after follow-up.

The fourth interested landowner said he’d call after a family event, but did not. This landowner also had significant issues on his property. He listened briefly to information about the risk of removing and topping trees on a steep slope, but was convinced he was doing the right thing and said he had been trying to convince his neighbors to do the same.

North Shore Target Area Results

The North Shore Target Area included approximately five miles of densely populated shoreline properties with very steep slopes parallel to the shoreline on the upland side of North Shore Road. Almost all the slopes above this stretch of road are naturally vegetated, in many places draining to larger creeks and streams, and to culverts that discharge to the canal. The rest of the drainages collect into ditches at the toe along the road and empty to the canal through periodic culverts.

Around the outlet of the Tahuya River, smaller creeks from higher elevations feed into larger streams and pass through neighborhood communities grouped into clusters. Although some upland development has occurred, recent activity has included both commercial and private property clearing, leading to increased flows and flooding of lowland properties.

The North Shore target area was not part of the 2015 outreach and education project. There were 184 properties, of which 23 were designated non-residential or undeveloped according to the Mason County Assessor’s online database. Upon door knocking attempts at 161 properties, 34 were found to be undeveloped, or inaccessible mainly due to locked driveway gates. No owner was home or available at 90 residences. Of 37 owners who answered the door, 24 said they were not interested in a site visit.

Thirteen landowners expressed interest in a site visit. Seven landowners completed a site visit at the time of door knocking, and one called to schedule. Of the eight site visits, five completed pre- and post-surveys, and three completed only the pre-survey. The reason for not completing the post-survey was to await follow-up, and one did not want to take the time.

In the Northshore area, 29% of the residents answered the door, 35% were interested in a site visit and 62% of those completed a site visit (Table 1).

Five additional landowners were labelled “potential” when they expressed an interest and said they would call, but did not schedule a site visit. Because of erosion conditions that were severe but not immediately dangerous, two of the five landowners were encouraged to call a Mason Conservation District engineer whether or not they pursued a site visit, and a third was encouraged to call soon to schedule a site assessment with the Shore Friendly Mason Program with Mason Conservation District.

There were many opportunities to discuss BMPs during these interactions. Three such opportunities arose when the landowners did not want a site visit, but ended up walking the property, discussing all the BMPs, but not completing a pre- and post-site visit survey (i.e. an “unofficial” site visit). One of the three was very concerned about flooding in a creek below, extensive logging on private land upslope, and the risk to their home.

Many landowners encountered had similar concerns, citing private property logging, development and other diversions upslope. When flooding was too severe to fall under the scope of this project, landowners were encouraged to contact Mason County’s Community Development or Public Works departments for more information. Most landowners had minor flooding over North Shore Road during heavy rains, and many had driveways that collected and channeled runoff onto their properties. Landowners not interested in a site visit were given information on planting buffers, directing runoff away from septic systems, and pet waste management to prevent fecal coliform and other pollution from entering their properties or Hood Canal.

Observations Regarding Site Visits

Site visits were generally successful in conveying the selected BMPs to landowners. Site visits conducted at a pre-scheduled time were the most thorough and most likely to lead to implementation. However, site visits conducted at the time of door knocking were more likely to result in drawing attention to conditions that could be addressed using the BMPs. In addition, casual conversations often led to the conveyance of one or more BMPs, especially due to the pervasive runoff experienced by shoreline properties.

Pet Waste

One of the most remarkable observations was the widespread knowledge of pet waste management. Virtually all landowners who were asked about the correct method for handling pet waste, not only knew what to do, but most also used the phrasing found in educational materials (i.e. pick up, bag and throw it into the garbage). One gentleman said he wasn’t sure, but after being told, jokingly said he knew what he was supposed to do but wanted to hear it from the WSU representative. There was almost no pushback by shoreline landowners who expressed a concern with water quality, but some upland landowners were skeptical of the impact pet waste could have on nearby drainages or the canal.

Onsite Sewage Systems

Landowners along the shoreline in Hoodspport and Union were well aware that their septic systems had the greatest potential for contributing to fecal coliform pollution. Behavior consistently indicated a weariness, but sometimes pride, in knowing that pumping regularly was a fundamental management practice. Very few used the term “inspected,” and most landowners felt that they were doing the necessary maintenance. Three landowners on the shoreline along Potlatch Road, knew a lot about their septic systems’ features, location and care of the drainfield area, and regular inspections – only one had a commercially harvested shellfish beach.

Nothing left to do

A majority of shoreline properties were “built out,” and landowners were left feeling that there was little else they could do. However, discussions around directing runoff away from their septic systems were well received. When asked if they knew where their septic system was, people tended to point out their septic tanks or said their drainfield was “somewhere around here.” When the drainfield appeared to be under pavement or otherwise used for parking, discussions about water conservation were pursued. One gentleman said he’d advised his sister to get a port-o-let when she had parties – and she did.

Planting buffers to absorb and filter runoff

Planting buffers was the least well-known subject in regard to reducing contaminants, but more well-known along the shoreline. The largest obstacle was either the lack of room on the property, or the large volume of stormwater escaping ditches, culverts or coming from under the roads (mostly in Hoodspport and North Shore). Plantings seemed most needed for erosion control. Responses ran the spectrum from too small a problem to worry about, to too much volume to be managed by plantings.

Recommendations for future outreach

The same WSU Extension contractor conducted door knocking and site visits in both the 2015 and 2016 projects. Although the sample size of site visited properties is small, the results of the door knocking approach were very positive. Recommendations and lessons learned from the 2015 project, including the 2016 interviews of 2015 site visited landowners, and 2016 the Audience Research surveys, were taken into account during the 2016 door knocking and site visits. These lessons include:

Conduct site visits with two Clean Water Advisors: The original recommendation was for one WSU Extension and one Conservation District staff member to collaboratively conduct the site visits. However, implementation may better be achieved by door knocking and site visits conducted by two WSU Extension staff members, with a designated follow-up role for the Conservation District (CD) where necessary.

Develop a targeted outreach program for stormwater issues: The 2016 project site visits found that almost all of the North Shore and many Hoodspport sites involved significant stormwater concerns

including significant flow from steep uplands that required more detailed and expert advice and could not be addressed by the site visit as described in the scope of work. Upland development and timber clearing will likely result in more stormwater problems. Future outreach and education projects in these areas should work with local stormwater agencies to develop a strong stormwater component. A drainage workshop could be developed by training small contractors and landscapers and then following up with residential workshops and making available a list of the trained contractors.

Follow-up as soon as possible: Follow-up should be done as soon as possible after the site visit, in order to keep the information fresh in the landowner's mind. This may also be a good opportunity to finish the post-site visit survey (if the landowner is home), to drop off plants or other incentives that may have been offered, and to reinforce BMP messaging.

Identify an issue *then* connect it with fecal coliform pollution: The mention of fecal coliform in the initial offer of a site visit has little effect on what the landowner remembers about the goal of the site visit. Fecal coliform and its specific importance to water quality and human health in shellfish growing areas needs to be repeated. However, experience with landowners showed increased receptivity when an issue was identified and *then* connected with fecal coliform pollution, rather than conducting the site visit for the purpose of identifying sources of this pollution.

Expand pet waste messaging: Most dog owners were knowledgeable in pet waste management and agreed it was the right thing to do. For those landowners, messaging could include passing-it-on to guests, family, and neighbors. Visitors who bring dogs along may not have knowledge of the BMP for pet waste, or consider a brief visit as unlikely to matter. Upland pet owners also need a better understanding that pet waste from their property could affect Hood Canal. For the landowner, in addition to adding fecal contamination to waterways, this also increases the chances of dog poop being tracked into the house on people's and pet's feet.

Develop specific messaging for upland property owners: Specific educational materials should be developed (or provided) for upland landowners. Most who lived in the uplands on drainages to Hood Canal did not think they impacted the canal or even the water quality of the drainage when the property was not on the bank of the waterway. However, stormwater issues were still a concern for some upland properties and the site visit was still useful.

Schedule site visit at time of door knocking: The landowners who were interested in a site visit and said they would call to schedule one, did not call. The letter sent in 2015 inviting landowners to schedule a site visit, and the letter sent in 2016 to request Audience Research participants, may have provided a 'heads up' about the project making door knocking less of a surprise in Hoodspout and Union. Although North Shore residents responded very well to site visit offers upon door knocking, they did not make calls to schedule either.

The option could be offered by the Clean Water Advisor doing the door knocking to offer to schedule the future site visit. A calendar could be shared by a smart phone in the field and the office, and the door knocker could be better prepared to address specific issues raised by the landowner. This might also provide an opportunity to ask a Conservation District to attend the site visit (with the owner's permission). If possible, offer an incentive for scheduling "on-the-spot."

Improve methods for Post-Site Visit Surveys: The pre-site visit survey is relatively easy to conduct, but there was more reluctance on the part of the landowners to complete the post-site visit survey. Reluctance seemed affected by the limitations of the site visit without follow-up, and not having enough time to absorb the information. Perhaps the post-site visit survey could be completed online, via email, or snail mail (providing a stamped/addressed envelope would help). This could be more effective as a tool to measure the change in BMP awareness, but also might rely too much on landowner motivation. Consider an additional incentive for completing the survey.

Pursue Potential Site Visits: There were quite a few landowners who said they were interested in a site visit, but they either did not call to schedule one, did not have time “now,” or would think about it. In the future, landowners who seem interested and who agree, could be re-contacted by door knocking, email, letter or phone call (most likely method). Follow-up contact could be made during the current project or at the beginning of the next project.

Engage the resident in a long term advisory program: There is a need to engage shoreline residents in a long term strategy to keep them up to date on water quality issues as well as remind them about BMPs and link them to more information. The WSU Shore Stewards program is one such program that provides a bi-monthly newsletter that keeps people up to date on current issues, interesting shoreline topics and upcoming local events relevant to shoreline residents.

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Appendix 1 – Landowner Summary Report

Example of letter provided to landowners after site visit.

LANDOWNER NAME – address

>Insert Aerial photo – Residence on Hood Canal shoreline with natural beach

>Insert Aerial photo of property – Prior to new home, septic, and landscaping changes

THANK YOU FOR ALLOWING WSU MASON COUNTY EXTENSION to conduct a 2016 Site Visit with you on your property at >address< to help you manage surface water runoff (stormwater) that causes you problems such as erosion and periodic wet areas.

Runoff greatly affects water quality by carrying contaminants and soil/silt to nearby ditches, culverts, streams and to Hood Canal. We hope to recommend solutions that work for your specific property as well as for Hood Canal, by applying these Best Management Practices for improving water quality:

- Inspection of septic systems as recommended by the appropriate local county agency and completing repairs as needed
- Pick up, bag and dispose of dog waste in the garbage
- Install vegetation to absorb and filter water

The following are issues identified when I walked with you around your property, and recommendations for addressing them. Resources for the recommendations are listed at the end of this document.

- **YOUR PROPERTY is served by an Onsite Sewage System (OSS).** The drainfield (the disposal component of the system) is located approximately 180 ft. upland from the septic tanks. A 1986 septic system installation shows its drainfield approximately 125 ft upland of the old house.

Your septic system is designed to protect ground and surface water from fecal pollution. The 2010 septic tank and pump chamber are nearer the house and have risers to seal out surface water runoff as well as an effluent filter to remove additional particulate matter from the liquid before being pumped to the drainfield. These features make it easier to ensure the proper function of the OSS. You also have a reserve area set aside for a replacement drainfield if ever needed. The reserve area is farther upland and may be located where you store your boat.

RECOMMENDATION 1: *Locate the drainfield and reserve areas to ensure they are not compacted due to parking of boats or cars, or by other activities.*

Drainfields require air and some water in order to treat the harmful bacteria and pathogens found in human waste. Avoid compacting the soil in the drainfield *and* reserve areas.

The reserve may be near the bottom of the rise on which you park your boat(s). Newer septic requirements ensure that the disposal components are far enough away from the toe of the slope to avoid being impacted by stormwater runoff. However, observe surface water flow during heavy rains to ensure runoff is directed away from this area.

It was not clear to me how near the 1986 septic drainfield was to the newer one. It would be useful to know the location, or to at least be aware of its presence, to avoid confusion during future land use changes.

- **YOU HAVE A WONDERFUL DOG and you know how to dispose of dog waste.** Of all the sources of fecal coliform pollution, dog waste is the most likely to go unaddressed. Some people just don't know, some just don't believe and some just find it to be too much trouble.

RECOMMENDATION 2: *Share this information with visitors.* Having a home on the waterfront is so appealing for gatherings of friends and family. It may be uncomfortable or be unwelcome, but if you get the chance, pass on the information about the impact of fecal coliform from dog waste on the canal and the simple solution: pick up, bag and put it in the trash. It's not fun, but it's not so hard, and it will help improve water quality for you, your family, friends, *and* pets.

- **YOUR HOOD CANAL WATERFRONT HAS A NATURAL BEACH WITH NATIVE PLANTS.** A natural beach allows a dynamic equilibrium to occur, where changes over time are both expected and desired. Beneficial processes cause beaches to grow, diminish and grow again creating a diverse habitat that supports a healthy, complex ecosystem. In addition, any vegetation between homeowner activity and Hood Canal will filter additional contaminants and help prevent erosion.

While walking along your beachfront, you asked about some of the plants there. The multi-branched semi-woody plant with yellow flowers is called Puget Sound Gumweed (*Grindelia integrifolia*) and is a native plant common to Hood Canal. A fact sheet is included in your site visit packet.



Photo by Amy Bartow, NRCS Corvallis Plant Materials Center, 2009

RECOMMENDATION 3: *Become familiar with your waterfront plant community and coastal processes.* Learn more about native and non-native shoreline plants, how a buffer of native vegetation can improve water quality, and how to preserve and protect your natural shoreline as well as your home.

The Mason Conservation District has programs that benefit homeowners with stretches of natural shoreline like yours and your neighbors'. The Shore Friendly Mason Program can provide free, non-regulatory technical assistance, information and resources to support your efforts to balance shoreline and homeowner choices. Contact Karin Strelieff, (360) 427-9436 ext 122, and *Call soon to get on the calendar for a free site assessment.*

You may want to develop some plant identification skills for information and for fun. For an at-a-glance picture gallery of native shoreline plants, see the Mason Conservation District website or contact an Environmental Specialist for help with identification.

Use the Washington State Noxious Weed Board's on-line tool to identify whether your beach plants should be removed. For proper removal and disposal of noxious weeds, call WSU Mason County Extension Noxious Weed Control program coordinator.

- **PLANTS FOR A SMALL ROCKY AREA near the septic tanks.** You wanted low maintenance, attractive plants that were not too tall and could handle the full sun as well as periodic stormwater pooling.

RECOMMENDATION 4: *Check out the options for salt-tolerant native groundcovers, grasses, sedges and wildflowers.* Some suggestions that fit the location and your preferences are: Sea Thrift, Broad-leaved Stonecrop, Coastal Lupine, Silverweed, and several grasses including Tufted Hairgrass.

There are plenty of cultivars (cultivated by selective breeding) that you might like, but be sure to check whether they are appropriate for our Hood Canal shoreline!

- **YOUR PROPERTY has a large grassed area, but also has native and non-native plants along the property lines.** The invasive plants on the northern property line closest to the house are not very extensive, however as you approach >name of road< invasives are integrated into the shrubby hedge. Himalayan blackberry, English Ivy, Yellow Archangel and other common noxious weeds invade the whole neighborhood.

RECOMMENDATION 5: *Remove the invasive shrubs nearest the house entirely by mechanical methods, and get technical advice about managing the rest.*

Noxious weeds do not stay put – they spread rapidly and displace native and other plantings, destroy habitat, increase erosion, and disrupt septic drainfield function. Remove all that you can before they take over and then manage the rest. Continue monitoring to avoid being suddenly overwhelmed.

Planting natives at the same time can help crowd out the invaders and because they have adapted to this region, they require less maintenance. Native plants can also be used as an attractive screen between yours and neighboring properties, absorbing and filtering stormwater as well. Some great options are red-flowering currant, tall Oregon grape, Nootka and other roses, and huckleberry. See the Native Plants for Marine Shorelines fact sheet in your packet for more ideas.

RESOURCES FOR MORE INFORMATION:

Washington State University’s Mason County Extension (360) 427-9670 ext. 680

<http://extension.wsu.edu/mason/>

The “Guide for Shoreline Living” (in your site visit packet) is a booklet of info and references for stewards of the Pacific Northwest’s “Salish Sea” (including Hood Canal) and its tributaries.

<http://shorestewards.cw.wsu.edu/> => FAQ to learn about becoming a Shore Steward



Mason Conservation District (360) 427-9436

<https://www.masoncd.org>

Free and non-regulatory programs and technical assistance for shoreline homeowners, the yearly native plant sale, and a great resource for helping landowners responsibly and efficiently manage their land and associated natural resources.

RECOMMENDATION 1:

Mason County Public Health Dept. (360) 427-9670 ext. 400

www.co.mason.wa.us

If you are unsure exactly where your drainfield and reserve (or the old drainfield) are located, call to see if your Mason County Onsite Sewage Specialist can help. You can also find a maintenance schedule for your septic (a pressure system), Do’s and Don’ts and other helpful information on the website.

Septic systems: => Public Health => Environmental Health => Onsite Sewage Systems

Records and mapping tool: => Property/Parcel information (Your parcel# is 42223-50-00145). Click on Mapsifter to “Check if Land Records are Available” or “View Map”.

WSU Shore Stewards’ topical newsletters

<http://shorestewards.cw.wsu.edu/> => News => Archived Newsletters

2014 - Landscaping Septic System Drainfields and Mounds – Issue 98

RECOMMENDATION 2:

Washington State University's Mason County Extension (360) 427-9670 x680

<http://extension.wsu.edu/mason/>

There are a couple of dog waste information sheets in your site visit packet, but if you want more to hand out (smile), call the WSU Mason Extension office and ask for Water Resources.

RECOMMENDATIONS 3 and 4:

Mason Conservation District (360) 427-9436

<https://www.masoncd.org>

Call Karin Strelloff at extension 122 to receive expert advice on the Shore Friendly Mason Program for shoreline homeowners.

See "Waterfront" => Shore Friendly Mason => Marine Shoreline Plants => Groundcovers, Shrubs & Small Trees for the Marine Shoreline.

See "2017 Native Plant Sale" for many of the plants recommended in planting plans.

See "Resources" => Program Resources => Native Plant Resources

WSU Mason County Extension Master Gardeners Program

<http://extension.wsu.edu/mason/> => Master Gardener Program and Small Farms

For help identifying plant diseases and lots of other gardening info

RECOMMENDATIONS 3 and 5:

Washington State Noxious Weed Control Board

www.nwcb.wa.gov

=> Noxious Weed List => Identify a Noxious Weed.

=> Noxious Weed List for shopping at a nursery or deciding what's what in your yard

=> Outreach => Publications => Garden Wise (NW Wa) for alternatives to invasives

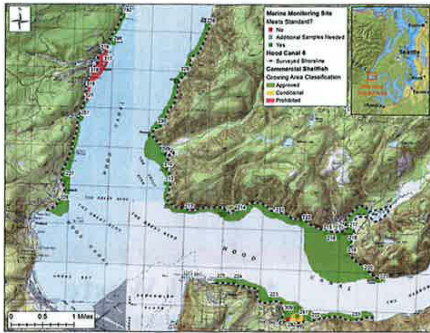
Washington State University's Mason County Extension (360) 427-9670

<http://extension.wsu.edu/mason/>

Noxious Weed Control Program Coordinator, Pat Grover at ext. 592 for Mason-specific weed problems and removal methods on the shoreline.

Hoodspport Water Quality Update

Summer 2016



Hood Canal 6 Shellfish Growing Area, WA State Dept. of Health

Shellfish Growing Area (Hood Canal 6) (see map) as classified by the DOH. Water quality in marine and freshwater areas is monitored by DOH, Mason County Public Health (MCPH), and the Skokomish Indian Tribe (Tribe).

Commercial shellfish harvest is currently prohibited in the area directly adjacent to Hoodspport due to historic concerns about failing onsite septic systems in the area.

quality standard for fecal bacteria.

The western shoreline of Hood Canal 6 has approximately 205 total acres of shellfish beds, with the Prohibited area by Hoodspport making up 65.6 acres. Efforts to improve water quality in these areas have the potential to benefit commercial and recreational shellfish harvest, and to protect human health and enjoyment of the natural resources in the area.

For more information visit: <http://hccc.wa.gov/content/pollution-identification-correction>

This report is being provided as a part of the Hood Canal Regional Pollution Identification and Correction (PIC) Program. The PIC Program works to protect and restore water quality, particularly to clean up and prevent fecal pollution from human and animal waste that threatens public health and our economy. Funding for the program is provided through a grant from the Washington State Department of Health (DOH) and the Environmental Protection Agency.

DOH staff have been evaluating this area due to a request to open the area for commercial shellfish harvest. In 2014-2015, DOH evaluated shoreline and upland conditions throughout Hood Canal 6. DOH staff surveyed for potential sources of pollution from drainage areas, roads, onsite sewage systems, agricultural activities, and other activities with the potential to harm water quality. Water quality monitoring in the Hoodspport area during this time period included thirty sites over one mile of shoreline, with each site monitored between one to twelve times. Of the Hoodspport sites, 63% met the water

Hood Canal Snapshot

- HC is a glacier-carved basin that is more than 60 miles long.
- The average width is 1.5 miles and the mean depth is 177 feet.
- HC provides habitat for a variety of wildlife including shellfish, finfish, and invertebrates but 80% of the animal species are too small to see with the naked eye.
- There are over 12 rivers in the HC watershed including the Skokomish River, Duckabush River, Hamma Hamma River, and Dosewallips River.

Hoodspport is part of the Hood Canal 6

Water Quality Success Stories

Long-time residents of the Hoodspport area are aware that the issue of water quality and pollution correction has come up many times in recent history. This project will attempt to build on previous successes to maintain improvements already achieved and address new concerns.

Previous water quality assessments include a Hood Canal Identification and Correction Project conducted by Mason County Public Health (MCPH) between July 2005-August 2008. This project included monitoring for fecal coliform bacteria and at sites with high fecal coliform results they also analyzed nutrient inputs.

The project was conducted through a shoreline survey in which staff walked the exposed tidelands and collected samples of

water from discharges along the shoreline which were then analyzed for fecal coliform. High results triggered confirmation sampling and if those results also had high levels of fecal coliform this triggered a sanitary survey. A sanitary survey involves surveying the onsite septic system components on a property and performing dye tests to see if the system is failing.

Sampling of the shoreline near Hoodspport showed elevated fecal coliform levels at 10% of the sites compared to elevated levels found at only 7% of the total sites sampled around Hood Canal. A total of 29 properties throughout Hood Canal were identified for further investigation with some receiving sanitary surveys and dye testing. Eight properties had identified

septic system failures and five of those had repairs completed by the end of the project in 2008. Since then, two of the remaining sites have had septic systems repaired or replaced and MCPH is still working to investigate one in the Hoodspport area.

In addition to identifying and addressing failing septic systems, MCPH staff conducted 14 public meetings and workshops related to fecal coliform and nutrient pollution, onsite septic system maintenance and operation, and other actions to protect water quality throughout Hood Canal. MCPH also adopted a new online data management system for septic system records that allows them to send out maintenance reminders to homeowners for whom maintenance reports have not been received as required.

You Can Help Protect Water Quality

Free Educational Site Visit

There are many ways for homeowners to address water quality concerns through the ways you manage your property.

Washington State University Extension is offering free site visits from clean water advisors. They can offer specific recommendations for your property including:

- Landscaping with native plants to add beauty to your yard, create a buffer along the shoreline or stream, or

- minimize erosion problems.
- Methods for managing drainage and wet areas.
- Recommendation for septic maintenance, including do-it-yourself maintenance.

The recommendations you receive will be strictly voluntary and will not be shared with any regulatory agency. However, upon request our clean water advisors can connect you with other experts who may

provide additional assistance.

Site visit participants will receive a free gift of native plants for your property!

To learn more or schedule an educational site visit contact us by August 19th at:

Erica Bates
WSU Mason County Extension
erica.bates@wsu.edu
(360) 427-9670 ext. 682

Onsite Septic Systems



Photo by Toni Droseher

Onsite septic systems can significantly contribute to reduced water quality if they are not properly maintained and serviced.

Fecal coliform bacteria from septic systems or pet and livestock

waste have been correlated with the presence of viruses or other pathogens that can affect human health.

All septic systems are required to undergo routine inspection and maintenance. The frequency and approved service providers depends on the type of system. As of 2015, none of the septic system types on the west shore of Hood Canal has more than a 50% compliance rate with operation and maintenance requirements.

Much of the development in this area is over 50 years old and many onsite septic systems have no as-built records. At least one third of the shoreline septic systems in the area also have a drainfield within 100 feet of surface water. These issues all have the potential to impact water quality and can be prevented with proper inspection and maintenance.

For more information on how to protect your investment in your septic system and water quality, contact Mason County Public Health or visit the website at: <http://www.co.mason.wa.us/health/environmental/onsite/index.php>.

If you need financial assistance to repair or replace your septic system, Mason County has partnered with Craft3. Craft3 is a non-profit that offers clean water loans to help property owners with their septic systems. The loans can cover up to 100% of the costs of designing, permitting, installing, and maintaining the septic system. More information is available at www.craft3.org and 1 (888) 231-2170.

For more information on Hood Canal, water quality, and homeowner practices visit:

WSU Mason County Extension: <http://extension.wsu.edu/mason/>

Mason County Public Health: <http://www.co.mason.wa.us/health/>

Hood Canal Coordinating Council: <http://hccc.wa.gov/>



Mason County
WASHINGTON STATE UNIVERSITY
EXTENSION

MASON COUNTY
Public Health
Always working for a safer & healthier Mason County

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Animal Waste



Manure composting facility. Photo from Mason Conservation District.


Pet and livestock waste contains fecal coliform and other bacteria that can get carried into nearby water by stormwater runoff. These disease causing organisms can be transmitted to people, pets, and wildlife. Fecal coliform, bacteria, salmonella, roundworms, and giardia can remain in your yard for weeks or months if not cleaned up.

Landfills are designed to safely handle pet waste but yards and septic systems are not. To keep harmful bacteria out of the water and out of your house scoop dog poop, bag it, and put it in the trash. Livestock owners can address manure issues by storing it in a covered area, composting it, and removing excess from the property.

For help managing livestock manure contact the Mason Conservation District at 360-427-9436.

Appendix 3 – “Sorry We Missed You” Postcard

Left at doors where no one was home.



Mason County
WASHINGTON STATE UNIVERSITY
EXTENSION

Site Visit Registration

To register for your free site visit, please contact us by August 26th at:

Erica Bates
WSU Mason County Extension
erica.bates@wsu.edu
(360) 427-9670, ext. 682

All site visits and recommendations are confidential and non-regulatory.
Your name and property will never show up in any documents.

*Participants will receive a free gift of native plants for your property!

Sorry we missed you!

Clean water advisors from WSU Mason County Extension are offering free educational site visits in your area.

Educational site visits are:

- * Designed to protect and improve water quality
- * Confidential and non-regulatory
- * All recommendations are voluntary

Receive land management suggestions personalized for your property on topics including:

- * landscaping with native plants
- * methods for managing drainage and wet areas
- * recommendations for septic system maintenance, including do-it-yourself options

Appendix 4 – Handouts for Landowners

EDUCATIONAL MATERIALS included in Landowner Site Visit Packet – Available under separate cover.

Mason County Public Health, Onsite Sewage System Program

- OSS Maintenance Schedule
- OSS Maintenance Requirements
- Septic Care Do's and Don'ts
- Inspecting Your Septic Tank (adapted from Thurston County)

WSU Extension

- Shore Stewards “Guide to Shoreline Living” booklet
- Shore Stewards Program and sign up information
- Pruning for Views
- OSS Key Points to Remember
- Landscaping Your Drainfield
- Dog Waste – Why Should I Care?
- Weed Alerts for Himalayan Blackberry and English Ivy

Mason Conservation District

- Marine Shoreline Planting Plan
- Shady Moist Planting Plan
- Sunny Dry Planting Plan
- Existing Tree Care and Views

USDA Natural Resources Conservation Service

- Plant Fact Sheet: Puget Sound Gumweed

Noxious Weed Control Board

- Bees and Noxious Weed Control
- Noxious Weed Disposal
- “Noxious Weeds That Harm Washington State” Western WA Field Guide booklet

Sound Native Plants

Plants for Steep Slope and Erosion

Craft3

Brochure on Clean Water Loans

Appendix 5: Site Visit Survey

Site Visit Survey- Questions for the beginning and during site visit

For Official Use: Parcel Number _____

Where is the property located?

- Union
- Hoodspout
- Northshore

How would you classify the property?

- Marine Shoreline
- Within 250' of Marine Shoreline
- Upland Freshwater Shoreline
- Upland within 250' of Freshwater Shoreline

Why did you agree to participate in a site visit?

How many dogs are located on the property?

- ___ Very small (under 8 lbs.)
- ___ Small (9-22 lbs.)
- ___ Medium (23-55 lbs.)
- ___ Large (56-100 lbs.)
- ___ Giant (100+ lbs)

What is your current level of knowledge (1-5) of the following shoreline/landowner management practices?

	Very Limited – 1	Limited – 2	Fair – 3	Good – 4	Very Good – 5
Maintaining your septic system	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Managing your pet waste	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Buffer plantings between your property and the water	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How often do you get your septic system professionally inspected?

- Once a year
- Every 3 years
- Every 5 years
- Every 10 years
- More than 10 years
- I don't know or can't remember
- I inspect it myself
- Other _____

What would you do if the inspection found that repairs are needed on your septic system?

- Fix it right away
- Seek financial assistance to repair system
- I would not fix it
- Contact Mason County Public Health for assistance
- Replace the entire septic system
- Other _____

How often do you do the following pet waste management practices?

	Never	Once a Month	Once a Week	2-3 Times a Week	Daily	Not applicable/No pets
Place in trash	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Compost/bury	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Place waste in toilet	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Leave in yard	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Do you have a buffer of plants between your yard and the water?

- Buffer of native vegetation between my yard and the water
- Buffer of vegetation (not necessarily all native) between my yard and the water
- No buffer present

Survey questions for the end of the site visit:

Would you recommend an educational site visit to other property owners?

- Yes
- No

How has your knowledge changed due to the information and recommendations received during your site visit?

	Knowledge has decreased	Knowledge is about the same	Knowledge has slightly increased	Knowledge has significantly increased	Not applicable
Overall knowledge about water quality impacts due to homeowners activities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Understanding of septic system maintenance recommendations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Understanding of suggested pet waste disposal methods	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Understanding of plant buffers and how they affect water quality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

What is the likelihood that you will do the following behaviors in the future?

	Much less likely	Less likely	Neutral	Likely	Much more likely	Not applicable
Have your septic system professionally inspected at least every 1-3 years, and make repairs as needed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pick up, bag and dispose of dog waste in garbage on a regular basis	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Install plantings to absorb and filter water	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Why do you plan on implementing one or more of the noted behaviors from above? Check all that apply.

- I am concerned about the health of nearby waters
- I am concerned about the environment as a whole
- I am concerned about the health of myself, my family, or my pets
- It is the right thing to do
- Other _____

If you do not plan on implementing one or more of the recommendations from above please check all the reasons that apply.

- It will cost too much
- I don't want to have consequences from a regulatory agency
- I don't think my changes on my property will make a difference
- I will do what I think is best for my property
- I don't have time
- Other _____

Are you interested in becoming a WSU Shore Steward?

- Yes
- No, why? _____

What other topics or issues would you like to receive information about?

Would you be interested in participating in a quick phone survey in the near future about your experience today? If so, please provide name (if desired), phone number, and the best time to contact you.