

County: Island
Grant No: SEANWS-2017-IsCoPH-00007

PROJECT TITLE: Island County Marine Resources Committee Operations and Projects

DELIVERABLES FOR TASK NO: 3.2 MRC outreach summary

PROGRESS REPORT: [☐] FINAL REPORT [☒]

PERIOD COVERED: October 2017-September 2018

DATE SUBMITTED: 9/28/2018



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Island County Marine Resources Committee Outreach: 2017-2018

I. Introduction

Outreach is an important aspect of the work of the Island County Marine Resources Committee (MRC). The MRC has placed an increasing focus on outreach, including internal outreach to Island County leadership as well as external outreach to the local community. Outreach is an integral component of each MRC project – whether a highly visible restoration project or behind-the-scenes data analysis. Helping the community understand what the MRC does and why will increase public interest in learning about and caring for the local marine environment.

The MRC developed an outreach plan in January 2018 to guide outreach work for the year. Several target audiences and strategies were identified. The primary strategies selected were the following:

- ♦ Forums and Workshops
- ♦ Presentations
- ♦ Educational Displays
- ♦ Events and Meetings

From these four strategies, several activities were identified as opportunities to implement targeted outreach. The activities are detailed in the following sections.

II. Strategies and Activities

A. Forums and Workshops

SHORELINE STEWARDSHIP FORUM: SOLUTIONS FOR AGING BULKHEADS, TIDEGATES AND OTHER SHORELINE STRUCTURES

Background

In 2017, the MRC conducted an Outreach Needs Assessment to understand the needs and opportunities for internal and external outreach. In that assessment, the MRC interviewed County Department Heads, staff, and one County Commissioner, to identify pressing issues that the MRC might be able to help address. The second most important topic that was identified, behind public outreach, was aging shoreline infrastructure. Based on these findings, the MRC decided to conduct a public forum on aging shoreline infrastructure, in collaboration with the Shore Friendly program. The forum was offered on Whidbey and Camano to make the information accessible to both islands.

Across Island County, residents have faced the need to remove, replace, and/ or upgrade aging shoreline sea walls, tide gates, septic and water systems. Retirement of these dated and degraded structures presents an opportunity to use improved techniques and technologies to better address shoreline living and shoreline stewardship. The forum was thoughtfully designed to have local experts present steps to assess, design, permit and apply new solutions to shoreline living and to remove old structures. The forum also showcased examples of communities applying collaboration and data-driven creative problem-solving techniques to the challenges presented by their aging infrastructure. Each forum offered an opportunity for participants to gather around maps of their community and speak with local

government representatives and fellow community members to discuss specific concerns and potential solutions.

Objectives

Following the forum, the participants will:

- ♦ Have a better understanding of how shoreline structures impact the environment.
- ♦ Have a better understanding of solutions for aging shoreline structures.
- ♦ Have resources and contacts to assist in exploring their next steps.

Publicity

The MRC developed a mailer to send to targeted communities, including diking districts, canal communities, and parcels identified as having derelict or failing shoreline armor. The mailing was sent to 1,112 address on Whidbey and 156 on Camano. The mailer is available in Appendix A.

In addition to targeted mailings, publicity efforts included emailing diking district commissioners and presidents of homeowners' associations. Flyers were distributed through the MRC email listserv and other partner organizations' distribution lists. The flyer was also posted through online calendars, including: Whidbey Camano Calendar, Whidbey Weekly, Whidbey News Group, Stanwood Camano News, Drewslist, and The Crab Cracker. The flyer is available in Appendix A.

The forum was also advertised on the front page banner of the Island County website. See Appendix A for a screenshot.

Registration

While the forum was free, participants were encouraged to register in advance. In the online registration, participants were invited to list the community they lived in and any concerns regarding aging shoreline structures. These questions were asked to help inform program presenters about specific areas and concerns that might be helpful to address during the forum.

Agenda

The Whidbey and Camano forums varied slightly according to the availability of presenters. The full agendas for both forums are available in Appendix A.

Both forums featured Hugh Shipman as the keynote speaker. Hugh covered an overview of coastal landforms, how the shoreline has been developed over time, issues that have been brought up subsequent to development, and potential considerations and solutions to address these complex concerns. Each presentation was tailored to the specific area where the forums were held.

Both forums featured presentations from Island County staff to address project planning and permitting questions as well as resources and incentives available for individuals and communities.

The Whidbey forum featured a presentation from a community member, Sally King, whose community is exploring solutions to an aging tidegate. Sally shared the history of the area, challenges faced by the community, and how the community is currently exploring solutions. During the Camano forum, Island County Salmon Recovery Lead Entity Coordinator, Dawn Spilsbury Pucci, presented on local community projects.

Following the presentations at both forums, the presenters formed a panel to answer questions from the participants in a group setting. After the panel, participants were encouraged to engage in breakout

discussions according to topics and/or geographic areas of interest. Area maps were set out over several tables, and the presenters were available to answer questions and engage in dialogue with the forum participants. Participants were also encouraged to discuss concerns and solutions with fellow community members.

Photos



Top: Barbara Bennett welcomes participants to Whidbey forum.

Bottom: Forum participants gather around area maps at Whidbey forum.

Right: Hugh Shipman presents at Camano forum.

Photo credits: Anna Toledo

Evaluation

Forty-three people attended the Whidbey forum and thirty-six people attended the Camano forum. Attendees were given a survey to fill out after the forum. A copy of the survey is available in Appendix A. An online version of the survey was also distributed to attendees in a follow-up email the following week, which also included resources for forum participants.

Twenty-three people (29.11%) responded to the survey: 14 from Whidbey, 9 from Camano. Full survey results are available in Appendix A.

Ninety-five percent of survey respondents agreed this forum was a valuable use of their time, and that they have a better understanding of how shoreline structures impact the environment. Eighty-six percent of respondents agreed that they have a better understanding of solutions for aging shoreline structures.

Participants indicated several follow-up actions they would take as a result of the forums, including:

- ♦ Bulkhead repair or removal
- ♦ Investigate maintenance of septic system
- ♦ Continue to work toward a natural shoreline by removing some creosote berms
- ♦ Contact county for surface water management
- ♦ Ask for evaluation of my septic and shoreline access

Participants indicated they learned several things, including:

- ♦ How sediment drift works moving along the shoreline
- ♦ Bulkhead effects on natural sand/gravel movement
- ♦ Better understanding of how dynamic ALL shorelines are
- ♦ How everything impacts our shorelines
- ♦ The natural forming of spits and the mixed value of erosion
- ♦ Liked the soft approach to shoreline instead of structures
- ♦ Learned about dynamics of shoreline
- ♦ Much better understanding of beaches
- ♦ Updated current understanding of shoreline management

It is clear the forums were well-received and provided tangible information for the attendees. Participants expressed gratitude for the presenters, content, and forum structure. One hundred percent of survey respondents indicated they would like more educational events like this. The MRC plans to continue to offer this style of forum on additional topics in the future.

VEGETATION MANAGEMENT WORKSHOP FOR SHORELINE LANDOWNERS

The MRC partnered with the Northwest Straits Foundation to host a shoreline vegetation management workshop. The workshop was held on May 3, 2018 in Langley, and drew about 40 participants. MRC staff, Anna Toledo, provided a welcome, introduction, and overview of the work of the MRC. Lisa Kaufman with the Northwest Straits Foundation presented on shoreline processes. Ben Alexander with Sound Native Plants presented on shoreline vegetation planning, planting, and maintenance.

B. Presentations

MRC CONFERENCE: IGNITE PRESENTATION, NOVEMBER 2017

MRC staff, Anna Toledo, provided a lively Ignite presentation at the MRC conference. The presentation highlighted the work of the MRC at the Cornet Bay restoration site, the finding of forage fish eggs at the site, and ongoing monitoring and vegetation maintenance.

MRC CONFERENCE: RESTORATION AND SEA LEVEL RISE PRESENTATION, NOVEMBER 2017

MRC staff, Anna Toledo, presented on how the MRC is thinking about sea level rise in the context of restoration projects. The presentation included data from a recent report on sea level rise projections for areas within Island County.

PRESENTATION TO BOARD OF ISLAND COUNTY COMMISSIONERS: BULL KELP IN ISLAND COUNTY, APRIL 2018

MRC Bull Kelp Project Lead, Linda Rhodes, presented on the bull kelp monitoring project to the Board of Island County Commissioners during their April 18, 2018 work session. The presentation highlighted the importance of bull kelp in the marine ecosystem and its contribution to the local economy. Linda provided an overview of the monitoring project and results, including that about 21 miles of Island County shoreline is associated with kelp beds. Linda also shared underwater images and video clips from kayak surveys. All three Commissioners engaged in questions and dialogue after the presentation.



Linda Rhodes presents to Board of Island County Commissioners. Photo: Anna Toledo

SALISH SEA ECOSYSTEM CONFERENCE: CITIZEN SCIENCE PRESENTATION, APRIL 2018

MRC Chair, Elsa Schwartz, and MRC Vice-Chair, Barbara Bennett, presented on building scientific rigor within citizen science projects. The presentation introduced the structure of the MRC and its role in supporting and strengthening citizen science through dialogue with audiences, annual review, and planning priorities.

SALISH SEA ECOSYSTEM CONFERENCE: BULL KELP PRESENTATION, APRIL 2018

MRC Bull Kelp Project Lead, Linda Rhodes, presented on the bull kelp monitoring project. The presentation included an overview of the project and findings from 2015-2017. Results presented included bed area estimates, temperature measurements, observations of animals utilizing the kelp beds, and a comparison of visible light and infrared aerial images.

SOUND WATER STEWARDS TRAINING, SEPTEMBER 2018

MRC staff, Anna Toledo, presented on the Cornet Bay restoration project on site to a group of 20 Sound Water Stewards trainees. The presentation covered an overview of the restoration site, the reason for conducting restoration, and pre- and post-restoration monitoring efforts. The on-site presentation gave trainees an opportunity to see a restored beach in person and discuss the ecological and recreational benefits.

C. Educational Displays

SOUND WATERS UNIVERSITY, FEBRUARY 2018

The MRC participated with a poster display and handouts at Sound Waters, a one-day “university” that drew over 600 attendees. The poster explained the importance of upper intertidal habitat for forage fish spawning habitat, and how shoreline armoring impacts that habitat. “About the MRC” flyers describing the work of the MRC were also distributed. This flyer is available in Appendix B.

KIOSK AT SMITH AND MINOR ISLANDS AQUATIC RESERVE, ONGOING

The kiosk at Libbey Beach Park, funded through the 2016 MRC grant, has been populated with bilingual (English and Korean) guidance for sustainable kelp and seaweed harvest, and information about bull kelp as habitat.



Kiosk at Libbey Beach Park. Photo: Linda Rhodes

EARTH DAY FESTIVAL, APRIL 2018

The MRC had a poster display and handouts at the Earth Day Festival at Bayview Hall. MRC staff, Anna Toledo, had conversations with about 20 community members. Several more viewed the display and handouts.

D. Events and Meetings

CORNET BAY MONITORING AND PLANTING, NOVEMBER 2017

MRC staff, members, and volunteers participated in a monitoring and planting event at the Cornet Bay restoration site. These events provide an opportunity to engage the local community in the work of the MRC in a one-time fashion, with the possibility for continued engagement through future events. Island County Commissioner Rick Hannold also stopped by the event to learn more about the project.



Lisa Kaufman, with volunteers Barb and Ed Adams, explain Cornet Bay monitoring work to Island County Commissioner Rick Hannold. Photo: Anna Toledo

PUGET SOUND CITIZEN SCIENCE SUMMIT, JANUARY 2018

MRC staff, Anna Toledo, participated in the Puget Sound Citizen Science Summit. This event provided the opportunity to connect with other citizen science groups, share about the work of the MRC, and plan for more effective citizen science work.



Anna Toledo and Cheryl Lowe reporting back to the group at Puget Sound Citizen Science Summit. Photo: Lucas Hart

PIGEON GUILLEMOT APPRECIATION DAYS, JUNE 2018

Pigeon Guillemot Project Lead, Frances Wood, led two activities for Pigeon Guillemot Appreciation Days: an educational display to present information about the research project, and a field trip to see a pigeon guillemot colony.



Pigeon Guillemot Coordinator, Govinda Rosling, shows off her “guillemot feet” with Ann Casey and Frances Wood at a Pigeon Guillemot Appreciation Day event. Photo: Anna Toledo

CATCH MORE CRAB OUTREACH, JULY 2018

The MRC participated in Catch More Crab outreach by distributing 350 educational cards to local retail locations on Whidbey and Camano Islands where crabbing licenses are sold, the Port of South Whidbey, and the Island County Public Health front desk. The MRC also participated in a Crabbing 101 class, and distributed materials at the Fort Casey boat launch on opening day.

FAMILY OUTDOOR DISCOVERY DAY, AUGUST 2018

The MRC had an informational display and forage fish toss game, borrowed from the Skagit County MRC, at the Family Outdoor Discovery Day at Fort Casey State Park. The display provided information on the importance of forage fish in the marine food web, and how to protect their spawning habitat. The game encouraged participation and conversation from children about how the marine food web works. Approximately 90 children participated.

HIDDEN BEACH INFORMATIONAL COMMUNITY MEETING, AUGUST 2018

The MRC partnered with the Northwest Straits Foundation and WA Department of Natural Resources to host an informational community meeting regarding a potential restoration project at Hidden Beach in Greenbank. Approximately 50 people were in attendance.



Lisa Kaufman presents at Hidden Beach informational community meeting. Photo: Anna Toledo.

MRC MONTHLY MEETINGS, ONGOING

The MRC meets monthly, and frequently includes educational presentations as part of those meetings, which the public is encouraged and invited to attend. Presentation topics in the 2017-2018 grant year included: Salmon Recovery Plan update, pigeon guillemot monitoring, bull kelp monitoring, eelgrass monitoring, MyCoast app development, marine debris, and the Actions to Impacts project through the Northwest Straits Commission.

PARTICIPATION IN PARTNER MEETINGS, ONGOING

The MRC maintains a connection with related local and regional work through integration with partner organizations. MRC members provide representation on the Island Local Integrating Organization and Island County Salmon Recovery Technical and Citizen Committee. The Whidbey Coordinator for Sound Water Stewards is an MRC member and provides regular updates to the MRC. MRC members also participate in the Puget Sound Ecosystem Monitoring Program (PSEMP) nearshore, forage fish, seabird, and diseases workgroups.

WEBSITE UPDATES, ONGOING

The MRC website is regularly updated with information on upcoming meetings and events, as well as project reports and past meeting minutes.

III. Lessons Learned

- One of the roles of the MRC is to advise Island County Commissioners on issues related to marine resources. While the Board of County Commissioners holds an ex-officio seat on the MRC, Commissioners are often unable to attend meetings. As such, there is not much ongoing communication between the MRC and Commissioners. One suggested idea that will be explored in 2019 is to produce a quarterly newsletter to inform Commissioners of the MRC's work, and upcoming issues to be aware of.

- In preparation for crabbing season, the MRC planned to go to local docks to provide Catch More Crab outreach materials. The Cornet Bay marina was already being covered by another group of volunteers, so the MRC worked with volunteers to provide outreach at the Fort Casey boat launch. Unfortunately, turnout was quite low because crabbers tend to utilize other docks due to the small size of the Fort Casey launch. In the future, the MRC should consult local crabbers about the most popular launch sites.
- One aspect of the outreach focus this year was on doing outreach to a broader community, to share the structure of the MRC as an example to groups that might not be familiar with it, and to establish the MRC as a consistent and reliable source of knowledge on local marine issues. Strategies for this goal included presentations at the Salish Sea Ecosystem Conference and engaging in regional meetings, such as the Puget Sound Citizen Science Summit. The MRC found that by utilizing multiple venues for engagement, they were exposed to the opportunity to network with a broader variety of organizations.
- The visibility of the Cornet Bay restoration site presented a prime opportunity for engaging local beach goers and Park patrons on the work of the MRC during monitoring and vegetation maintenance events. This highlights the value of the educational opportunity of restoration work in addition to the habitat benefits. This should be a consideration when identifying potential restoration projects.

IV. Appendices

A. Forum Materials

B. “About the MRC” Brochure



Shoreline Stewardship: Solutions for Aging Bulkheads, Tidegates and Other Shoreline Structures

When: Saturday, April 21, 2018
9:00am–12:30pm

Where: Pacific Rim Institute
Granary Auditorium
180 Parker Rd, Coupeville 98239

What: If you or your community owns an aging tidegate, community septic system, water system or shoreline armoring – **this workshop is for you!**

Repair and/or replacement of aging infrastructure can be costly and the design and permitting can be daunting. Join us for an interactive discussion with County staff, state experts and communities that have been successful at finding solutions to aging infrastructure repairs/replacement.

Refreshments will be provided!

RSVP required: <https://www.surveymonkey.com/r/QMDY7ZN> or contact Anna Toledo at a.toledo@co.island.wa.us or 360-678-2349.



ISLAND COUNTY PUBLIC HEALTH
P.O. BOX 5000
Coupeville, WA 98239-5000

**Island
Focused!**

Free Shoreline Workshop Series!



Vegetation Management for Shoreline Landowners

When: Thursday, May 3, 2018
6:00pm–8:00pm

Where: Bayview Community Hall
5642 Bayview Rd
Langley, WA 98260

What: Ben Alexander from Sound Native Plants and Lisa Kaufman from Northwest Straits Foundation will highlight the “why” and “how” of effective landscape management at this workshop designed specifically for shoreline landowners.

Learn about coastal geology and how best to manage your landscape for slope stability and wildlife habitat. Island County’s marine shorelines support marine food webs and the local economy. People who live and work on shoreline properties have a large role to play in their protection and restoration.

Refreshments will be provided!

RSVP required: <https://www.surveymonkey.com/r/Whidbey2018> or contact Anna Toledo at a.toledo@co.island.wa.us or 360-678-2349.



Communities on Camano and Whidbey Islands have inherited shoreline structures built in the 1900's. Over that time, we have learned how important shoreline health is for Island living, including fishing, clamming and clean beaches for swimming.

Much has changed on these islands since these structures were designed and built:

- seasonal fishing cabins have become year-round homes;
- lowlands and tidal lagoons drained for agricultural have become residential sites; and
- creeks that meandered to lagoons now surge with storm water as forest cover decreases.

Additionally, population has increased locally and regionally, salmon runs have declined and clamming and swimming beaches are experiencing more closures due to pollution.

Your community's aging shoreline structure may be an opportunity to take a step to preserve what you love about island life. New technologies and increased understanding of shoreline health provide good information and many options to inform your decisions.

Your decisions today about what and how to remove, repair or replace shoreline structures will impact the future of these islands and the region's natural resources for the next 50-100 years. Your decisions will impact salmon recovery, water quality, and ultimately the ability to harvest shellfish and swim on our beaches.



Before



After

SUCCESS STORY: CORNET BAY

The Island County Marine Resources Committee (MRC) identified the aging creosoted bulkhead at Cornet Bay as an opportunity for restoration. Along with several partners, the MRC secured funding to remove the bulkhead and contaminated fill, re-grade the beach to a natural slope, and plant native vegetation. This not only restored the beach's natural beauty and enhanced access to the shoreline for recreational use, but the restoration work also returned the habitat to a state friendly for forage fish spawning. Forage fish, such as Pacific sand lance and surf smelt, are a key link in the marine food web, supporting larger species, such as salmon, seabirds and marine mammals.

We play an integral role in the complex ecosystems where water meets the land. New strategies and innovative solutions may allow you to preserve - and even restore - the natural resources that attract you and your neighbors to Island County in the first place.

ADDITIONAL RESOURCES

Island County: www.islandcountywa.gov

Whidbey Island Conservation District: www.whidbeycd.org

Shore Friendly: www.shorefriendly.org

Snohomish Conservation District: www.snohomishcd.org

Green Shores for Homes: www.greenshoresforhomes.org

Contact: Anna Toledo, Island County Department of Natural Resources
a.toledo@co.island.wa.us, 360-678-2349



**Northwest
Straits
INITIATIVE**
partners in marine conservation



FREE SHORELINE STEWARDSHIP FORUM

SOLUTIONS FOR AGING BULKHEADS, TIDEGATES AND OTHER SHORELINE STRUCTURES



YOU'RE INVITED!

Do you or your community own an aging tidegate, community septic system, water system or shoreline armoring? Then this workshop is for you!

Join us for an interactive discussion with County staff, state experts and communities that have been successful at finding solutions to aging infrastructure repairs/replacement.

SATURDAY, APRIL 21
WHIDBEY

9:00am - 12:30pm
Pacific Rim Institute
180 Parker Rd, Coupeville

SATURDAY, APRIL 28
CAMANO

9:00am - 12:30pm
Utsalady Ladies Aid
78 Utsalady Rd, Camano Island



RSVP required: <https://www.surveymonkey.com/r/QMDY7ZN>



Hosted by Island County Marine Resources Committee
WWW.ISLANDCOUNTYMRC.ORG

ANNA TOLEDO / A.TOLEDO@CO.ISLAND.WA.US / 360-678-2349

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Appendix A: Forum Materials – Island County Homepage Screenshot

The screenshot shows the official website of Island County, Washington, viewed in a web browser. The browser's address bar displays the URL <https://www.islandcountywa.gov/Pages/Home.aspx>. The website's header includes the Island County logo, the text "Island County" and "Serving the communities of Camano & Whidbey Islands", and a search bar. Navigation links for "HOME", "YOUR GOVERNMENT", "HOW DO I...", and "COUNTY SERVICES" are present. The main content area features a large banner for the "FREE SHORELINE STEWARDSHIP FORUM" with the subtitle "SOLUTIONS FOR AGING BULKHEADS, TIDEGATES AND OTHER SHORELINE STRUCTURES". The banner is split into two sections: "SATURDAY, APRIL 21 - WHIDBEY" (9:00am - 12:30pm Pacific Rim Institute) and "SATURDAY, APRIL 28 - CAMANO" (9:00am - 12:30pm Utsalady Ladies Aid). A "LEARN MORE" button is located at the bottom right of the banner. Below the banner, a row of five service icons is displayed: "MAPS" (Visit Island County's mapping center), "PERMITS & LICENSES" (A listing of licensing and permitting options), "EMPLOYMENT" (A listing of currently available positions), "PARKS & TRAILS" (Find the many parks & trails of Island County), and "DEPARTMENTS" (A listing of Island County departments and their contact info). The Windows taskbar at the bottom shows various application icons and the system clock indicating 2:24 PM on 4/13/2018.

Island County, Washington

Secure | <https://www.islandcountywa.gov/Pages/Home.aspx>

Island County
Serving the communities of Camano & Whidbey Islands

HOME | YOUR GOVERNMENT | HOW DO I... | COUNTY SERVICES

Search Island County Site

FREE SHORELINE STEWARDSHIP FORUM

SOLUTIONS FOR AGING BULKHEADS, TIDEGATES AND OTHER SHORELINE STRUCTURES

SATURDAY, APRIL 21 - WHIDBEY
9:00am - 12:30pm Pacific Rim Institute

SATURDAY, APRIL 28 - CAMANO
9:00am - 12:30pm Utsalady Ladies Aid

[LEARN MORE](#)

MAPS
Visit Island County's mapping center.

PERMITS & LICENSES
A listing of licensing and permitting options.

EMPLOYMENT
A listing of currently available positions.

PARKS & TRAILS
Find the many parks & trails of Island County.

DEPARTMENTS
A listing of Island County departments and their contact info.

2:24 PM
4/13/2018

Shoreline Stewardship: Solutions for Aging Bulkheads, Tidegates and Other Shoreline Structures

Forum Agenda

Saturday, April 21, 2018
Pacific Rim Institute
180 Parker Rd, Coupeville, WA 98239

- 8:30-9:00 Registration**
- 9:00-9:15 Welcome and Introductions**
Barbara Bennett, Vice-Chair, Island County Marine Resources Committee
- 9:15-10:00 Maintaining Shoreline Infrastructure in a Complex Coastal Environment: Problems and Opportunities**
Hugh Shipman, Coastal Geologist, Washington Department of Ecology
- 10:00-10:45 Project Planning**
- Tidegates: Doug Kelly, Hydrogeologist, Island County Environmental Health
 - Septic Systems: Susan Wagner, Public Health Specialist, Island County Environmental Health
 - Permitting: Janet Wright, Senior Planner, Island County Planning and Community Development
- 10:45-11:00 Break**
- 11:00-11:20 Community Project: Overview and Lessons Learned**
Sally King, Vice President, Greenbank Beach and Boat Club
- 11:20-12:15 Break-Out for Table Discussions**
- 12:15-12:30 Wrap-Up and Adjourn**



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Shoreline Stewardship: Solutions for Aging Bulkheads, Tidegates and Other Shoreline Structures

Forum Agenda

Saturday, April 28, 2018
Utsalady Ladies Aid
78 Utsalady Rd, Camano Island, WA 98282

- 8:30-9:00 Registration**
- 9:00-9:15 Welcome and Introductions**
Barbara Bennett, Vice-Chair, Island County Marine Resources Committee
- 9:15-10:15 Maintaining Shoreline Infrastructure in a Complex Coastal Environment: Problems and Opportunities**
Hugh Shipman, Coastal Geologist, Washington Department of Ecology
- 10:15-10:30 Break**
- 10:30-11:15 Project Planning: Presentations**
- Tidegates: Doug Kelly, Hydrogeologist, Island County Environmental Health
 - Septic Systems: Susan Wagner, Public Health Specialist, Island County Environmental Health
 - Community Examples: Dawn Spilsbury Pucci, Lead Entity Coordinator for Salmon Recovery, Island County Department of Natural Resources
 - Resources: Anna Toledo, Coordinator, Island County Marine Resources Committee
- 11:15-11:30 Project Planning: Panel**
- 11:30-12:30 Break-Out for Table Discussions**



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Shoreline Stewardship Forum: Solutions for Aging Bulkheads, Tidegates and Other Shoreline Structures
 Saturday, April 28, 2018
 Forum Evaluation

Thank you for taking the time to fill out this survey. It helps us know how we did and how to better serve you in the future!

1. How did you hear about the event?

- ☐ Mailing
☐ Flyer (please indicate where): _____
☐ Neighbor/colleague/friend
☐ Other (please specify): _____

2. Please rate the following statements:

	Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree
The forum was a valuable use of my time.	1	2	3	4
I have a better understanding of how shoreline structures impact the environment	1	2	3	4
I have a better understanding of solutions for aging shoreline structures	1	2	3	4

3. After attending this forum, will you make any changes at your property? Yes No

If yes, what? _____

4. What is one thing you learned? _____

5. What did you like best? _____

6. Do you have suggestions on how we could improve this event in the future? _____

7. Would you like more educational events like this? Yes No

Please tell us other topics you'd like to learn more about: _____

8. Do you need follow-up about a specific item? If so, please indicate your name, contact information, and the follow-up need below.

Additional comments:

Shoreline Stewardship Forum: Solutions for Aging Bulkheads, Tidegates and Other Shoreline Structures
Saturday, April 21 & 28, 2018
Forum Evaluation Responses

Forum participants: 79

Survey respondents: 23

Response rate: 29.11%

Question 1: How did you hear about the event?

Answered: 22, Skipped: 1

- ♦ Mailing: 27.27%
- ♦ Neighbor/colleague/friend: 31.82%
- ♦ Other (please specify): 45.45%
 - Stanwood Camano News
 - Facebook
 - Whidbey News Times
 - Email (5)
 - Whidbey Weekly (2)

Question 2: Please rate the following statements:

Answered: 22, Skipped: 1

	STRONGLY DISAGREE	SOMEWHAT DISAGREE	SOMEWHAT AGREE	STRONGLY AGREE	TOTAL	WEIGHTED AVERAGE
	1	2	3	4		
The forum was a valuable use of my time.	4.55% 1	0.00% 0	9.09% 2	86.36% 19	22	3.77
I have a better understanding of how shoreline structures impact the environment.	4.55% 1	0.00% 0	22.73% 5	72.73% 16	22	3.64
I have a better understanding of solutions for aging shoreline structures.	4.55% 1	9.09% 2	40.91% 9	45.45% 10	22	3.27

Note: One attendee rated each statement as “Strongly Disagree” but left complimentary statements in the rest of the evaluation, so they may have misread the answers in this question.

Question 3: After attending this forum, will you make any changes at your property?

Answered: 18, Skipped: 5

- ♦ Yes: 61.11%
- ♦ No: 38.89%

Question 3b: If yes, what?

- ♦ Bulkhead repair or remove
- ♦ Investigate maintenance of septic system
- ♦ We will continue to work toward a natural shoreline by removing some creosote berms.
- ♦ Not sure – I may contact someone to come to our property and assess
- ♦ Contact county for surface water management
- ♦ Ask for evaluation of my septic and shoreline access
- ♦ Considering
- ♦ Look closely at plot vegetation

Question 4: What is one thing you learned?

- ♦ We are transitioning
- ♦ My pond, leaking and run off
- ♦ The drawbacks of a concrete bulkhead
- ♦ How sediment drift works moving along the shoreline.
- ♦ Overview info and contacts
- ♦ County sources for help and information
- ♦ Bulkhead effects on natural sand/gravel movement
- ♦ Better understanding of how dynamic ALL shorelines are
- ♦ How everything impacts our shorelines
- ♦ The diversity of issues that are currently being regulated
- ♦ Geological/marine patterns
- ♦ The natural forming of spits and the mixed value of erosion
- ♦ All systems are combined.
- ♦ County rules are evolving to be one of many emerging issues, but not all
- ♦ How to access information
- ♦ Liked the soft approach to shoreline instead of structures
- ♦ Learned about dynamics of shoreline
- ♦ Complexity, geological info (good)
- ♦ Much better understanding of beaches
- ♦ Updated current understanding of shoreline management

Question 5: What did you like best?

- ♦ Different experts
- ♦ All!
- ♦ Lots of info
- ♦ All references to bluff risks and solutions – sea levels and effects to wells. Septic drainage off bluff.
- ♦ Doug Kelly's presentation was very good. Understanding the freshwater and saltwater relationship was also good.
- ♦ Key issues discussed. Ability to contact people for more info
- ♦ The variety of information presented
- ♦ Q & A
- ♦ Shoreline and Greenbank
- ♦ Discussion by Sally King
- ♦ Large involvement and interest of many communities
- ♦ Hugh Shipman's presentation
- ♦ Good presenters – Hugh Shipman & Doug Kelly were relevant and helpful
- ♦ Hugh Shipman was great!

- ♦ Hugh Shipman, Sally King and drainage presentations. Informative and comforting to hear about rules & regs, but not the same thing – necessary but not sufficient.
- ♦ Historic and geologic Whidbey shorelines
- ♦ Sally King’s presentation
- ♦ Loved description of shoreline evolution processes. It was all helpful. Really learned a lot about septic system process as well
- ♦ Multi-disciplinary approach, opportunity for questions
- ♦ Greenbank Beach and Boat Club
- ♦ All good

Question 6: Do you have suggestions on how we could improve this event in the future?

- ♦ No (3)
- ♦ List of contractors to use
- ♦ Great event – very informative
- ♦ Not really, all speakers were good.
- ♦ County planner should be onsite
- ♦ More breakfast-type items. Directions to get here. I used google and ended up far away.
- ♦ More, more, more transparency and obligation to assist with issues
- ♦ “Stretch” breaks every hour
- ♦ Have a separate tide gate workshop
- ♦ I would like a presentation specifically on tidegates and the latest developments

Question 7: Would you like more educational events like this?

Answered: 22, Skipped: 1

- ♦ Yes: 100%
- ♦ No: 0%

Question 7b: Please tell us other topics you’d like to learn about:

- ♦ Utsalady evolution
- ♦ Stairs to beach
- ♦ Vegetation recommendations for bluff retention
- ♦ Business zoning
- ♦ Sea level rise vs removing bulkheads
- ♦ Just updating on new resources and requirements
- ♦ High bank landscaping
- ♦ Bluffs and slides
- ♦ Back bluff stability and earthquake impact
- ♦ What to do if I want to remove a bulkhead in a canal lot at Lagoon Point
- ♦ Water supplies and saltwater intrusion
- ♦ Maintaining natural environment
- ♦ Foliage for banks
- ♦ Tide gates, sedimentation, problems in low lying areas
- ♦ More re: erosion, plantings
- ♦ Tidegates and the latest developments
- ♦ Shoreline rehab
- ♦ Definitely!
- ♦ N/A
- ♦ Pilings, docks, floats

Additional comments:

- ♦ Thank you
- ♦ Very well done
- ♦ Thank you for being available to our community
- ♦ Thank you! Thanks for coffee/goodies

Island County Marine Resources Committee

About the MRC

The Island County Marine Resources Committee (IC MRC) is a group of volunteers, appointed by the Board of Island County Commissioners, from a cross-section of disciplines working to protect and restore marine life, habitat, and water quality along the county's shoreline. This is accomplished through research, restoration, education, and outreach. There are many opportunities to get involved in our projects. Contact us or attend a meeting!



Projects Overview



Bull Kelp Monitoring

IC MRC monitors bull kelp beds using kayaks and hand-held GPS units to map the size of selected kelp beds. In 2017, aerial images were also captured and evaluated. Floating beds of bull kelp are critical habitat for many invertebrates and fish, including the endangered Puget Sound rockfish, bocaccio.

Forage Fish Monitoring

IC MRC monitors forage fish spawning through surveys at beaches around Island County. One goal of the project is to integrate forage fish beach spawning assessments into shoreline protection and restoration projects to track how forage fish use areas of restored shoreline.



Cornet Bay Restoration and Seining

IC MRC conducted seining at Cornet Bay for 8 years in conjunction with restoration work, to track how juvenile salmonids and other species utilize the nearshore habitat. The restoration project involved removing creosoted bulkhead and contaminated fill, and re-grading the beach.

Eelgrass

IC MRC collaborates with Sound Water Stewards in utilizing underwater videography and aerial photography to map eelgrass beds around Island County. IC MRC is also exploring the use of sonar to track the size of eelgrass beds.



Pigeon Guillemot

IC MRC, in partnership with the Whidbey Audubon Society, has been studying the populations of pigeon guillemots on Whidbey Island since 2008. Monitoring the pigeon guillemot population can help indicate changing conditions in the birds' environment.



www.islandcountymrc.org



Where We Work

