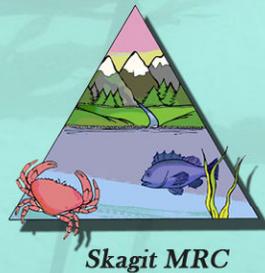


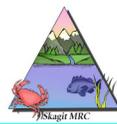
# SKAGIT COUNTY MARINE RESOURCES COMMITTEE



## 2009 ANNUAL REPORT

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## BACKGROUND

The Skagit Marine Resources Committee (SMRC) is a citizen-based advisory committee established by Skagit County Resolution #17433 in 1999. SMRC's stated mission and purpose is to "Act as a catalyst for protection and restoration of the marine waters, habitats, and species of Skagit County to achieve ecosystem health and sustainable resource use." The primary three goals of the SMRC include: 1) Restore the health of the Skagit County marine waters, habitats, and shorelines to sustainable levels; 2) Collect high quality data and promote its use and dissemination; and 3) Promote stewardship and understanding of Skagit County marine resources through education and outreach.

SMRC is composed of 19 volunteer members who have been appointed by County Council and represent diverse interest groups with a vested interest in protecting and restoring the health of Puget Sound including: marine scientist/Shannon Point Marine Center, concerned citizens, sport fishing, recreational diving, marine dependent business/American Gold Seafoods, Tesoro Oil Refinery, non-profit environmental organizations (i.e. People for Puget Sound, Skagit Land Trust, Skagit Conservation District, Skagit Fisheries Enhancement Group), Port of Anacortes, Skagit County Public Works, Skagit County Planning and Development, Swinomish Tribe, Samish Tribe, Sauk-Suiattle Tribe, and Upper Skagit Tribe. Staff support for the SMRC is provided by the Water Resources Section of the Skagit County Public Works Department. In 2009, SMRC members contributed approximately 800 hours of volunteer time towards SMRC related tasks.

SMRC combines sound science and a "bottom-up" approach to protecting and restoring the marine resources of the Northwest Straits. Community involvement is an integral part of SMRC's work. With the help of volunteers we are able to keep project costs low and promote citizen stewardship to achieve long term success. In addition, SMRC has developed and expanded partnerships with local, federal, and tribal governments, non-profit organizations and citizen groups to share resources to help leverage projects and get them off the ground.

The Northwest Straits Commission (NWSC) is the regional group that supports the Congress authorized Northwest Straits Marine Conservation Initiative (NWSI) and the administration of all seven MRCs through grants, coordination with appropriate governmental agencies, and training on marine resource issues.

A series of Performance Benchmarks were created to measure progress of the NWSI in protecting and restoring degraded resources and habitats of the Northwest Straits. The goal of the NWSI Performance Benchmarks is to protect and restore the marine waters, habitats and species of the Northwest Straits region to achieve ecosystem health and sustainable resource use. SMRC selects restoration and conservation projects based on specific prioritized needs guided by the Performance Benchmarks set by the NWSI. This report highlights the SMRC activities and accomplishments and the specific NWSI Benchmarks each project addressed during 2009. In addition, this report addresses the work plan for 2010.

### NWSI Performance Benchmarks

#### Marine Habitats

*Protect and restore marine, coastal and nearshore habitats, prevent loss and achieve a net gain of healthy habitat.*

#### Marine Life

*Protect and restore marine populations to healthy sustainable levels.*

#### Marine Water Quality

*Protect marine water quality of the Northwest Straits region, and restore the health of marine waters.*

#### Sound Science

*Collect high quality data and promote its use and dissemination.*

#### Education and Outreach

*Promote stewardship and understanding of Northwest Straits' marine resources through education and outreach.*





## ADMINISTRATIVE DUTIES

**Project Lead:** *Tracy Alker- Skagit County Public Works*  
**Budget (2009-2011):** \$44,100

### Project Objectives:

- *Schedule & hold meetings*
- *Prepare & distribute agenda*
- *Prepare & distribute minutes*
- *Prepare other logistical & communication functions as needed*
- *Prepare progress reports, final reports, & completion report for the NWSC*
- *Track & administer the budget*
- *Contract management*
- *Ongoing maintenance of SMRC website and/or development of content, design, images or other website features*
- *Prepare the annual report which will summarize SMRC activities & progress on projects, including progress in achieving the Initiative's performance benchmarks, successes and failures in the Work Plan.*
- *The Work Plan will include the objectives, timeframe, products, and benchmarks addressed.*
- *SMRC members will attend the annual NWSC training & additional conferences.*
- *A representative of the SMRC will attend each NWSC meeting.*

### 2009 ACCOMPLISHMENTS

**SMRC Meetings & Communication:** Monthly SMRC meetings were held on the second Thursday of each month and were open to the public. Guest speakers provided important information on current marine resources related issues at most meetings. There was a full roster of SMRC members in 2009 and meeting attendance was strong. County Staff facilitated communication between SMRC members and outside agencies. Meeting information was distributed via the local paper, e-mail & SMRC website.

**Grant Administration:** Staff provided continued grant administrative support including: Grant proposals, grant reports, contract management & project coordination.

**SMRC Website:** Staff continuously updated the SMRC website (<http://www.skagitcounty.net/MRC>) to keep the public informed about SMRC projects and reports, stewardship opportunities, educational programs, special events, and current issues related to marine resources. Meeting agendas and minutes are posted monthly on the SMRC website.

**Annual Report:** The 2009 Annual Report has been completed and submitted.

**Work Plan:** The 2009 and 2010 Work Plans have been completed. However, the 2010 Work Plan is a working document and will continually be updated.

**Training:** Charlie O'Hara is the SMRC representative who attended most of the NWSC meetings in 2009 and presented highlights from the NWSC meetings at the monthly SMRC meetings. Ivar Dolph attended some of the meetings as the alternate. Seven SMRC members attended the 2009 annual NWSC/MRC training conference in Bellingham.

### 2010 WORK PLAN

**SMRC Meetings & Communication:** SMRC will continue holding monthly meetings on the 2<sup>nd</sup> Thursday of each month. The public and policy makers will be informed about the SMRC's ongoing activities. Meeting agendas and minutes and special events will be posted monthly on the SMRC website.

**Grant Administration:** Skagit County Staff will continue to provide administrative support including grant administration, contract management, budget tracking, and communication facilitation.

**SMRC Website:** The website will be updated on a monthly basis.

**Annual Report:** The 2010 Annual Report will be completed by January 20, 2010

**Work Plan:** The draft 2010 Work Plan has been completed, but will likely need to be updated.

**Training:** Charlie O'Hara was recently appointed to continue to be the NWSC representative from SMRC (Ivar Dolph is the alternate) for a 2<sup>nd</sup> term. Charlie will attend the NWSC meetings & present highlights at SMRC meetings. All SMRC members are encouraged to attend the 2010 NWSC training conference, as well as other training opportunities.



## EDUCATIONAL MATERIALS

**Project Lead:** *Ivar Dolph & Paul Sund*  
**Budget (2009-2011) :** \$2,300

**NWSI Benchmarks:** *Education & Outreach*

### Project Objectives:

- Update and reproduce at least 100 copies of the Skagit MRC “Field Guide to Common Intertidal Seaweeds” and “Field Guide to Common Intertidal Invertebrates, & Fishes.” Materials will be distributed at public events.
- Update and reproduce at least 200 copies of the Skagit MRC “Report to the Community”. Materials will be distributed at public events.

### 2009 ACCOMPLISHMENTS

Paul Sund, the SMRC project lead, printed 200 field guides to common seaweeds, invertebrates, and fishes” through Bayshore Office Products on July 29, 2009. The field identification cards and SMRC brochures were distributed to the public at educational events including Fidalgo Bay Day, the Bivalve Bash, Swinomish Earth celebration, and, and the Mount Vernon High School Science Night. These brochures were used to raise public awareness on issues impacting marine resources and the important SMRC projects that help restore and protect the marine Environment.



### 2010 WORK PLAN

The SMRC Brochure “A Report To the Community” will be updated and at least 100 copies will be printed after July 1, 2010. SMRC will continue distributing the SMRC brochure and marine animal and seaweed identification cards during educational and training events.

## N. SKAGIT BAY DRIFT CELL ANALYSIS

**Project Lead:** *Neil Borman & Aundrea McBride*  
**Budget (2009-2011):** \$26,000

**NWSI Benchmarks:** *Science*

**Project Objectives:** *Conduct a coastal geomorphic assessment and restoration prioritization of the North Skagit Bay shoreline. This task is the next phase of a project to complete this work for all Skagit County shorelines. The assessment will involve the mapping of current and historic geomorphic character of the drift cells within the defined study area. The results will then be applied to developing prioritized, process-based restoration opportunities aimed at restoration or enhancement of the habitats found along the study area.*

### 2009 ACCOMPLISHMENTS

Skagit MRC contracted with Coastal Geologic Services (CGS) to conduct a coastal geomorphic assessment of the N. Skagit Bay shoreline. CGS has developed a preliminary work plan and timeline. In 2009, CGS completed the following tasks: Acquired historic air photos & maps, compiled existing data into a GIS database, performed geomorphic field mapping by small boat with GPS, processed mapping data & imported into GIS, delineated modified shore segments for further analysis and geo-referenced historic air photos.



### 2010 WORK PLAN

CGS will complete the following tasks by February 2010: Score all modified units using the HSSI approach, enter HSSI results into GIS, and analyze results of the historic assessment. CGS will complete the following tasks by April 2010: Perform restoration & conservation assessment, formulate & prioritize all recommendations, produce cost estimates for potential projects, write up results, produce maps in GIS, finalize GIS data products, and compile a draft report. The draft report will be complete & submitted by March 20, 2010. CGS will complete and submit the final report by June 18, 2010. The final report will include research discussion, conclusions, and recommendations, GIS illustrated maps and associated shapefiles, and analysis of data collected. The results will be presented to the SMRC by June 30, 2010.



## WSU BEACH WATCHER TRAINING

**Project Lead:** *Ivar Dolph*  
**Budget (2009-2011):** \$20,000

**NWSI Benchmarks:** *Education & Outreach*

**Project Objectives:** *Support two WSU Beach Watcher 100 hour core training programs in Skagit County over a two year period, enrolling at least 30 new Beach Watcher volunteers.*

### 2009 ACCOMPLISHMENTS

Skagit MRC partnered with WSU to recruit new volunteers in the Beach Watcher 100 hour core training program that occurred March 2009. Over 30 presenters contributed their time and expertise towards this effort. Thirteen community members completed the 100 hours of training to become WSU Beach Watchers. These individuals join the 57 locally trained WSU Beach Watchers from previous years and have become very active in a number of existing Beach Watcher, SMRC, and other partner projects. In addition to the 100 hour core training program, Skagit County Beach Watchers completed specialty-training courses in an LID workshop “One Back Yard at a Time” and Microplastics Monitoring training in preparation for fall sampling and processing dates. WSU Beach Watcher volunteers donated 2,171 hours from July 1, 2009 – through December 31, 2009. Throughout 2009, WSU Beach Watchers have participated in a variety of education, research, and stewardship projects in Skagit County. WSU Beach Watchers have been involved with many projects that are of special interest to Skagit MRC including: Recreational Crabber Education, Shore Stewards Program Support, Beach profile and biota monitoring (Anacortes), Green Building/LID Education, Fidalgo Bay Day Support, and WSU Beach Watcher Program support.

### 2010 WORK PLAN

Recruiting new Beach Watchers will be an ongoing process throughout 2010. WSU Beach Watcher training will take place April 6, 2010 to April 30, 2010 and September 7, 2010 to October 1, 2010. Planning for the training program started in December 2009 and will continue until the training program is complete.



*WSU Beach Watcher Class of 2009*

## SHANNON POINT RESEARCH TRAINING EXCURSION

**Project Lead:** *Paul Dinnel*  
**Budget (2009-2011):** \$2,400

**NWSI Benchmarks:** *Education & Outreach*

**Project Objectives:** *Partner with Shannon Point Marine Center (SPMC) to conduct four boat-based research training excursions for at least 30 SMRC, Beach Watcher & Shore Steward volunteers to receive training on marine monitoring techniques and equipment. Training will include: otter trawl, beam trawl, bottom dredges, plankton nets, CTD with water sampling bottles, secchi disk for turbidity and remote operated vehicle. SPMC will provide research and technical staff, sampling gear and a research vessel. Training will be carried out in and around Burrows Bay, Fidalgo Bay, and Padilla Bay. Training volunteers about sampling techniques in the marine environment may lead to new ideas on how to propose and conduct new SMRC and Beach Watcher projects in the future and provide additional tools that volunteers can use to provide community education and outreach.*

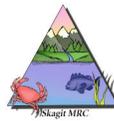
### 2009 ACCOMPLISHMENTS

Skagit MRC partnered with Shannon Point Marine Center to conduct boat-based marine sampling training excursions. Paul Dinnel met with Shannon Point facilities staff to start the planning process for the excursions including the timing and logistics for the training.



### 2010 WORK PLAN

The planning process will be finalized in 2010. Two or more training cruises will take place during spring/summer of 2010 and any remaining cruises will occur in spring 2011.



## WSU ESCAPE CORD EDUCATION

**Project Lead:** *Ivar Dolph*  
**Budget (2009-2011):** \$10,000

**NWSI Benchmarks:** *Education & Outreach*

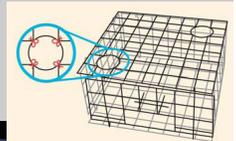
**Project Objectives:** *Support an escape cord education project led by the Skagit County WSU Beach Watchers to inform recreational crabbers about how and why to use escape cords on crab pots in Puget Sound. Volunteers will be recruited and trained to conduct outreach events. At least 800 informational cards will be distributed during the 2009 & 2010 crabbing season. Escape cord education efforts encourage recreational crabbers to outfit their gear appropriately, reducing the substantial threat of this source of mortality.*

### 2009 ACCOMPLISHMENTS

Skagit MRC partnered with WSU Beach Watchers to implement the Escape Cord Education Program. Throughout the 2009 crabbing season, educational Escape Cord cards were made available at Anacortes Ace Hardware, Cape Sante Harbormaster's office and fuel dock, West Marine Anacortes, Anacortes Marine Supply, Anderson's Store on Guemes Island, and the Fidalgo Bay RV Park. Escape Cord cards and posters explained what escape cords are, why use them, how to use them, and where they are available. In addition, public presentations and public service announcements about escape cords were provided. In 2009, nine WSU Skagit County Beach Watchers contributed 148 volunteer hours towards planning, outreach education and distribution of 600 Escape Cord cards with attached cord samples and 30 extra cords at local marinas and boat launches. 511 recreational crabbers were contacted during the 2009 crabbing season.

### 2010 WORK PLAN

Volunteers will be recruited and trained to conduct outreach events in 2010. At least 800 informational cards will be distributed during the 2010 crabbing season.



**Escape Cord Placement**

## FIDALGO BAY CONTAMINANT ASSESSMENT

**Project Lead:** *Christine Woodward*  
**Budget (2007-2009):** \$21,000

**NWSI Benchmarks:** *Marine Water Quality  
Sound Science*

**Project Objectives:** *Partner with the Samish Tribe to collect and test water samples for metals and nutrients at 17 existing outfall/creek sites in Fidalgo Bay for a total of four times each year for two years during the summer, fall, winter, and first rain event. Pesticide sampling will occur at three selected sites located along Fidalgo Bay four times per year with two of the four times being rain events. The goal of this project is to provide a snapshot into what types and quantities of contaminants are being introduced into Fidalgo Bay and determining the overall health of the waters entering the Bay.*

### 2009 ACCOMPLISHMENTS

Skagit MRC partnered with the Samish Tribe to collect and test water samples at 16 existing outfall creek sites in Fidalgo Bay. Water samples were collected during a total of four sampling periods between 2007 and 2009. Water samples were tested for nutrients, metals, and pesticides. Three sites are tested for PCBs and SOCs. Preliminary data analysis indicates that nutrient inputs to Fidalgo Bay may be at levels that warrant additional data analysis and collection to better understand nutrient loading into the Bay.



### 2010 WORK PLAN

The SMRC portion of this project concluded in June of 2009. The Samish Indian Nation has been awarded Puget Sound Partnership Tribal funding to expand nutrient data collection to 25 stormwater outfalls beginning in June of 2009 through June 2010. Supplemental information from this study will be added to the two years of existing database for baseline water quality information that has been gathered by this program for the past two years.



## FIDALGO BAY DAY

**Project Lead:** *John Giboney & Rebecca Spurling*  
**Budget (2009-2011):** *\$5,000*

**NWSI Benchmarks:** *Education & Outreach*

**Project Objectives:** *Increase public awareness of the marine environment and the creatures that live there and encourage people to take action in protecting the waters of Fidalgo Bay and Puget Sound by partnering to coordinate and host the 2009 and 2010 Fidalgo Bay Day. The one-day event will include educational videos, hands-on demonstrations, displays, children's activities and samples of local seafood. A survey of participants will be done to evaluate learning at this event.*

### 2009 ACCOMPLISHMENTS

Skagit MRC helped sponsor and organize the sixth annual Fidalgo Bay Day event which took place September 19, 2009 at the Fidalgo Bay RV Park. Approximately 250 to 280 visitors attended. Some of the different activities included a solar photovoltaic exhibit, a paddleboat pool, fish prints, face painting, a marine sea creature touch tank, and educational DVDs including SMRC's Car Wash Kit video. Several kids participated in a passport activity which required them to find the answers to questions relating to the natural world. Passports were stamped at each of the designated educational booths and were put into a raffle at the end for various prizes. This year's highlight was a beach haul seine demonstration provided by Dan Penttila with the Washington Department of Fish and Wildlife. In addition to the educational activities, several local restaurants provided samples of local chowders and grilled shellfish. A delicious barbecued salmon lunch was provided by the Samish Tribe. Close to fifty volunteers (200 volunteer hours) and twenty six organizations participated in this event.



### 2010 WORK PLAN

The next Fidalgo Bay Day will be held September 18, 2010. Planning is currently underway. The Banner will need to be secured by February/March 2010.

## LOW IMPACT DEVELOPMENT BROCHURES

**Project Lead:** *Betsy Stevenson*  
**Budget (2009-2011):** *\$2,000*

**NWSI Benchmarks:** *Education & Outreach*

**Project Objectives:** *Design & print at least 500 informational brochures on Low Impact Development (LID) with specific examples of LID projects in Skagit County. LID Materials will be distributed to property owners seeking development permits at local public works offices & through public events. The purpose is to provide education for developers, landowners, and other interested parties on the importance of low impact development to minimize and treat stormwater runoff.*

### 2009 ACCOMPLISHMENTS

Betsy Stevenson, the SMRC project lead, is currently researching existing LID educational material and is developing a list of local LID projects that currently exist in Skagit County.



### 2010 WORK PLAN

Betsy will continue collecting existing LID information to use in the brochure. The brochures will be printed and distributed by June 2011.



# LONE TREE POCKET ESTUARY RESTORATION MONITORING

**Project Lead:** Charles O'Hara  
**Budget (2007-2009):** \$10,000

**NWSI Benchmarks:** Marine Habitat  
Sound Science  
Marine Life

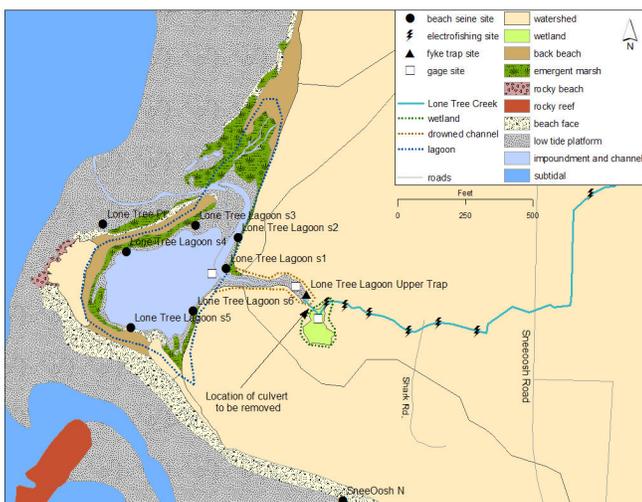
**Project Objectives:** Contract with Skagit River System Cooperative or the Swinomish Tribe to continue post restoration monitoring of fish use at the Lone Tree Point restoration site for one additional year in order to provide two years of post project monitoring that will be available to provide for an improved interpretation of the benefits of restoration at this site.

## 2009 ACCOMPLISHMENTS

As part of the Lone Tree Point estuary restoration, the Swinomish Tribe replaced five fish blocking culverts with a bridge & arched culverts, increased tidal influence in the upper estuary, enhanced the riparian area with native plantings, and created infiltration gardens to reduce pollution from road run-off. In 2009, SMRC partnered with the Swinomish Tribe to continue collecting post restoration monitoring data on fish communities (particularly juvenile Chinook salmon) in the Lone Tree Creek and Pocket Estuary. The three years of pre-restoration monitoring data was combined and analyzed with the two years of post-restoration monitoring data. Data was collected inside and outside the estuary two times per month during the salmon out migration season (Feb-Oct), and occasionally in January. The data was evaluated to determine the impacts and benefits of restoring the Lone Tree Point estuary on fish communities. Post restoration monitoring data indicated that the volume of the pocket estuary increased from approximately 300 cubic feet to 10,000 cubic feet. Wild juvenile Chinook were observed in the Lone Tree pocket estuary and lower creek section directly following restoration efforts. Relative abundance and distribution of juvenile Chinook salmon has significantly increased following removal of the culvert. Juvenile Chinook salmon had a 2.4-fold increase and chum salmon had a 217.9-fold increase. Overall results from this study suggest that pocket estuaries that include a small seasonal stream component may provide a significant function as a low salinity refuge to migrant juvenile Chinook salmon during their transition from fresh to saltwater residency.

## 2010 WORK PLAN

The SMRC portion of this project concluded in June of 2009. Through an additional source of funding, monitoring will be continued to monitor water quality improvements as a result of the restoration and riparian enhancement efforts.





## SMART SPONGE

**Project Lead:** *Paul Dinnel*  
**Budget (2007-2009):** *\$5,000*

**NWSI Benchmarks:** *Marine Water Quality  
Education & Outreach*

**Project Objectives:** *Partner with local public works departments to initiate a demonstration project to improve the removal of oil, grease, bacteria and trash from selected storm drains using the Smart Sponge filtering system. Three storm drain locations will be identified and Smart Sponge inserts and filters sized to fit each specific storm drain will be purchased. SMRC partners (public works departments) will be responsible for installation, maintenance and monitoring. As a demonstration project, public education will also be provided in the form of signage. Smart Sponge® technology has been proven effective in various previous projects for removing high percentages of oil, bacteria, metals and debris from storm water entering urban storm drains. Once oil is absorbed, the Smart Sponge® transforms the pollutants into a stable solid for easy recycling or disposal.*

### 2009 ACCOMPLISHMENTS

Skagit MRC partnered with the City of Anacortes, Skagit County Public Works, and the Swinomish Tribe to install Smart Sponge® units in seven storm drain locations including: the corner of Commercial & 9<sup>th</sup> Ave, the City of Anacortes Senior Center, the Anacortes Theater parking lot, the Anacortes Depot, the Swinomish Tribe's casino parking lot at the northern end of the Swinomish Channel, and two storm drains in the Skagit County's Public Works building. Selected Smart Sponge® locations were labeled with stencils to inform the public about this project. Once installed, a press release was prepared and issued to the local media. An educational demonstration session was held at the Anacortes Depot site for local media and other interested parties. A Smart Sponge® demonstration was also presented to the Skagit County Commissioners. Volunteers monitored the Smart Sponge® units on a monthly basis to determine maintenance requirements, longevity and ease of use several times per year. Paul Dinnel contributed over 25 hours of volunteer time monitoring these Smart Sponge® inserts. Monitoring included recording photographically the initial condition of the filters and the sediment/debris load in each filter. The drains were cleaned of accumulated debris and sediments as needed. Most of the inserts appeared to be functioning well during the summer months. However, some of the Smart Sponge® units frequently got clogged with sediment build up and needed to be flushed out on a regular basis. Potential maintenance issues due to clogging indicate that the City and County probably won't want to maintain a large number of storm drain inserts. Fewer large units near endpoints in the system may make maintenance more feasible.

### 2010 WORK PLAN

The SMRC portion of this project concluded in June of 2009. However, volunteers continued to monitor the smart sponge units through the end of 2009. Monitoring will likely continue through 2010 for the life of the Smart Sponge®. Due to the high maintenance requirements, the Smart Sponge® units won't likely be replaced after they expire.





## CAR WASH KITS

**Project Lead:** *Lori Kyle*  
**Budget (2007-2009):** \$15,000

**NWSI Benchmarks:** *Marine Water Quality  
Education & Outreach*

**Project Objectives:** *Partner with the Skagit Conservation District to initiate a County-wide outreach program to provide car wash kits to the public works departments of the six main cities of Skagit County plus the Skagit County public works department. The kits will be available for groups to borrow free of charge, for carwash events. The SMRC will purchase seven kits and produce additional materials (signage, brochures, litter bags, fact sheet, DVD) for the outreach campaign. The purpose of the kits is to redirect the gray water, including dirt, phenols, heavy metals, and detergents from the storm water system to either a sanitary sewer or a grassy area. Using the kits would also allow fundraiser groups to comply with the Washington State Clean Water Act and educate a large audience regarding ways that individuals can help protect our water resources.*

### 2009 ACCOMPLISHMENTS

Skagit MRC partnered with the Skagit Conservation District to initiate a County-wide car wash kit outreach program. Seven car wash kits were purchased and distributed to the City of Burlington (2 kits), City of Sedro Woolley (2 kits), City of Mount Vernon (1 kit), Skagit County Public Works (1 kit), and the City of Mount Vernon Fire Department (1 kit). As part of the outreach campaign, sandwich boards with dryErase pens and Erasers, tote boxes, brochures, litter bags, fact sheet, and DVD) were provided along with the kits. 1000 program mailers were produced to inform schools, churches, and youth groups et of the Car Wash Kit program. Multiple copies of the mailers were also provided to the 7 kit holders for further promotion. Volunteers posted approximately 50 promotional mailers on community message boards. The message also got out about the car wash kit program via e-mail. A seven minute informational DVD on where to get a Car Wash Kit, why a group should use one, and how to set it up, was also provided. The DVD was presented to Fidalgo Bay Day visitors as well as Skagit County Commissioners. The DVD was also posted on Youtube and links to the video were provided on the Skagit Conservation District, SMRC, and Northwest Straits websites. Car wash kits were made available to fundraiser groups free of charge. Groups who borrowed the kits were asked to fill out an “after the event” report sheet which included the location of the event, date event held, number of cars washed, and whether the wash water was directed to a sanitary sewer or a grassed area.

### 2010 WORK PLAN

The SMRC portion of this project concluded in June of 2009. The kits will continue to be made available free of charge to groups for car wash fund raising events. The Skagit Conservation District will continue to collect and analyze the car wash kit “after the event” reports.





## SPARTINA SURVEYS AND REMOVAL

**Project Lead:** *John Giboney*  
**Budget (2009-2011):** \$6,200

**NWSI Benchmarks:** *Marine Habitat  
Education & Outreach*

**Project Objectives:** *Partner with People For Puget Sound and the Swinomish Tribal Community to identify tribal sites in need of smaller scale manual removal and work on a site-by-site basis to recruit and train at least 10 volunteers to control those areas. Conduct at least one training and two surveys for invasive *Spartina* in Skagit County using established protocols. The objective is to educate residents on the extent and effects of invasive *Spartina* and what they can do to help eradicate it.*

### 2009 ACCOMPLISHMENTS

Skagit MRC partnered with People for Puget Sound (PPS) and the Swinomish Tribal Community to identify tribal sites in need of smaller scale manual removal and train volunteers to conduct kayak-based surveys for invasive *Spartina* using established protocol. PPS hired a part-time intern, Rachel Benbrook, to help with the Sound-wide *Spartina* program. The small-scale 2009 *Spartina* Dig Day took place August 16, 2009 at Kiket Lagoon. SMRC member Paul Dinnel brought four college students from WWU to help with the dig. Jill Eelkema from Skagit County was also there so it was a great cooperation. Volunteers were trained in *Spartina* identification and provided with *Spartina* identification cards, handbooks, and contact information to report any future sightings. Volunteers also learned how *Spartina* could damage the bird and fish habitat. All of the *Spartina* was removed from the lagoon (~15 M<sup>2</sup>). Volunteers contributed 30 hours to this small dig. Standardized *Spartina* survey protocol & QA/QC on survey data collected was used to prioritize shorelines for *Spartina* removal & train volunteer kayakers. Each volunteer kayaker was given a training packet which included: forms and guidelines for conducting surveys, a laminated *Spartina* ID card, and ziplock bags for storing *Spartina* specimens for verification. People for Puget Sound volunteers and staff conducted three trainings and eight surveys in Skagit County in 2009. A total of 44 miles of Skagit County shoreline was surveyed throughout the summer and approximately 58.5 square meters of *Spartina* was found. The *Spartina* locations were mapped using GPS & GIS. The *Spartina* that was found was treated with herbicides. 15 Volunteers contributed 139 hours (equivalent to \$2,299.06) to *Spartina* surveys in Skagit County in 2009. Additional education & outreach activities included: distributing laminated *Spartina* identification cards around the region to controllers, stakeholders, user groups, and the general public. Presentations about the *Spartina* program were presented to WSU Beach Watchers and the West Coast Sea Kayak Symposium in Port Townsend. A poster demonstrating the results of the last three years of kayak surveys in the North Sound was presented at the 2009 Northwest Straits Commission Annual Conference in Bellingham in November.

### 2010 WORK PLAN

Planning for the 2010 *Spartina* Dig Day and kayak based surveys are currently underway. Rachael will begin conducting education & outreach in the spring of 2010 to recruit and train volunteer kayakers. Depending on the location and quantity of *Spartina* found, a small scale community dig will likely occur in August 2010.

2009 *Spartina* Survey: Skagit County





## MARCH'S POINT BASELINE SURVEY

**Project Lead:** *Ivar Dolph*  
**Budget (2009-2011):** \$4,600

**NWSI Benchmarks:** *Sound Science*

**Project Objectives:** *Baseline beach profile and vegetation/substrate data was collected from transects on the east side of March's Point in 2007 in preparation for removal of a shoreline boat ramp. This task will augment that existing pre-removal baseline data using trained volunteers and existing protocols to collect data in 2010 at the already-established stations along March's Point during low tide cycles prior to June 2011. This will provide a more robust baseline data set and, therefore, a more useful dataset for comparison with post-restoration conditions when the restoration project is completed.*

### 2009 ACCOMPLISHMENTS

Skagit MRC partnered with WSU Beach Watchers to collect baseline survey data for March's Point. Tie-in points for the monitoring data collected in 2007 were established in August of 2009. The newly placed 2009 USACE (United States Army Corp of Engineers) benchmark established on the NE corner of March's Point will be used to create accurate beach profiles from existing data sets obtained during the 2007 monitoring at March's Point. Survey protocol has been established for this project and is provided in the QAQC.



### 2010 WORK PLAN

The approved QAQC will be used to collect baseline data at March's Point during low tide cycles in 2010.

## STORM WATER ANTIMICROBIAL TREATMENT UNIT INSTALLATION AND MONITORING

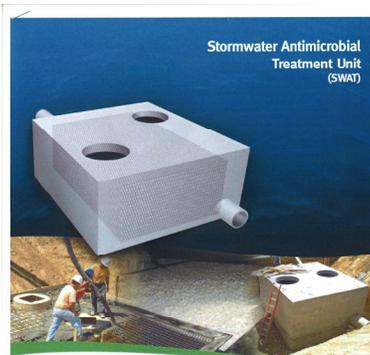
**Project Lead:** *Paul Dinnel*  
**Budget (2007-2009):** \$38,000

**NWSI Benchmarks:** *Marine Water Quality  
Education & Outreach*

**Project Objectives:** *Partner with Padilla Bay National Estuarine Research Reserve (Ecology) to conduct a demonstration project to assess bacterial removal from the drainage ditches entering Padilla Bay from the town of Bayview using a Storm Water Antimicrobial Treatment (SWAT) unit that targets many bacterial species including Escherichia coli, enterococcus, Salmonella and fecal coliforms. The influent and effluent water quality will be monitored bi-weekly to determine any reduction in bacteria. Samples will be collected by volunteers and analyzed by a Skagit County contract laboratory.*

### 2009 ACCOMPLISHMENTS

Paul Dinnel, the SMRC project lead, met with Terry Williams and the staff of the Padilla Bay National Estuarine Research Reserve regarding funding and timing of the Reserve boat ramp/outfall project with which the SWAT unit construction will be synchronized. Paul talked to the Skagit County Public Health about processing samples collected for bacterial counts. Unfortunately funding for the Health Department has been cut and they can no longer process samples. Paul had conversations with WSU Beach Watchers about using volunteers to collect routine water samples before and after SWAT treatment. The Water Quality Monitoring Plan and QAQC has been completed and will be used by the volunteers for collecting water samples in 2010.



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smart sponge

### 2010 WORK PLAN

In 2010 we will determine whether or not the Padilla Bay National Estuarine Research Reserve will be the lead on this project. If they are the lead, they will be responsible for the purchasing and installation of the SWAT unit, and for monitoring the water quality. Water quality will be collected in the spring and summer of 2010 prior to the installation of the SWAT unit. The SWAT unit will be installed in the fall of 2010.



## CANNERY POND RESTORATION FEASIBILITY STUDY

**Project Lead:** *Paul Dinnel*  
**Budget (2009-2011):** *\$12,000*

**NWSI Benchmarks:** *Science*

**Project Objectives:** *Support a Master's level graduate student to research the history, geology, physical/chemical characteristics, elevations, and fauna and flora of Cannery Pond and provide initial recommendations regarding the efficacy of transformation of Cannery Pond into a pocket estuary. In addition to a pocket estuary's value to salmon and other fauna, a newly formed pocket estuary on the grounds of Shannon Point Marine Center could provide an excellent laboratory for student research. The project will be accomplished by a graduate student at Western Washington University supervised by Dr. Paul Dinnel, Marine Scientist and a Skagit MRC member. Additional assistance with the project may be solicited from other students at Shannon Point Marine Center as well as MRC, Beach Watcher and community volunteers. All requested funds will be used to support the graduate student and his/her research.*

### 2009 ACCOMPLISHMENTS

A WWU graduate student, Hanna Seyl, has been selected for the Cannery Pond restoration feasibility study. Hanna's thesis proposal for this project has been accepted by her graduate committee and the WWU Graduate School. Hanna has already begun researching the historical aspects of Cannery Pond and will begin sampling in January 2010 with the assistance of Skagit River Systems Cooperative staff and technical staff at Shannon Point Marine Center. The contract between WWU and Skagit County is expected to be approved mid-January.

### 2010 WORK PLAN

Hanna will begin sampling in January 2010 with the assistance of the Skagit River Systems Cooperative staff and technical staff at the Shannon Point Marine Center. The final project report will be completed prior to June 17, 2011. A Master's thesis will be completed beyond the end of this grant agreement.



## WSU SHORE STEWARDS

**Project Lead:** *Ivar Dolph*  
**Budget (2009-2011):** *\$11,200*

**NWSI Benchmarks:** *Education & Outreach*

**Project Objectives:** *Support the ongoing Shore Stewards program to engage shoreline property owners in learning about marine issues & implement ten guidelines to minimize impacts to Puget Sound. At least 75 Shore Stewards will be recruited during this period and ongoing education will be provided to existing Shore Stewards through monthly newsletters. All materials produced will include the Skagit MRC logo as a project sponsor.*

### 2009 ACCOMPLISHMENTS

Skagit MRC partnered with WSU Beach Watchers to host a series of shoreline landowner workshops. The workshops educated the shoreline landowners on the importance and application of a few habitat-friendly concepts and helps create healthier waters and shores for birds, fish and wildlife. A few topics covered in the workshops included: coastal processes & bluff dynamics, reducing land slide risk, shoreline regulations, conservation easements, septic maintenance, yard care, native & invasive plants, and local restoration projects. The first workshop was held January 24, 2009 on Guemes Island where 44 people attended. The second workshop was held March 7, 2009 in Shelter Bay/La Conner, where 27 people attended. Each new Shore Steward was sent a "welcome packet", which included a "Guide to Shoreline Living" booklet outlining 10 best management practices for shoreline residents, the educational DVD "Shoreline Living: Protecting our Shorelines and Puget Sound," and a shore stewards sign (if requested).

### 2010 WORK PLAN

Planning is currently underway for the next workshop which will be scheduled for May 2010.





## LOW IMPACT DEVELOPMENT DEMONSTRATION PROJECT (Anacortes Depot)

**Project Lead:** *Paul Dinnel*  
**Budget (2009-2011):** \$17,000

**NWSI Benchmarks:** *Marine Water Quality  
Education/Outreach*

**Project Objectives:** *Partner with local governments and other partners to install a Low Impact Development (LID) demonstration site on City of Anacortes property that includes a rain garden, interpretive signage and pervious pavers. Volunteers will be recruited to help with installation and planting the rain garden and installation of pervious pavers. The objective is to raise public awareness on the impacts that stormwater runoff has on marine resources, show examples on how LID techniques can help minimize the impacts.*

### 2009 ACCOMPLISHMENTS

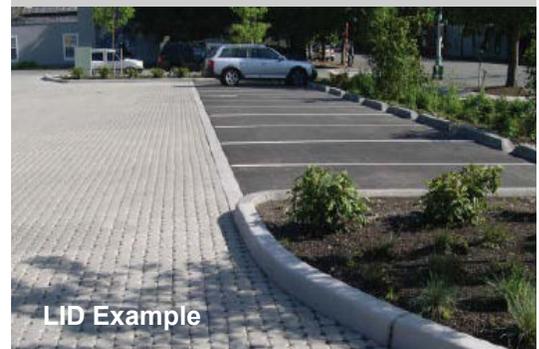
Skagit MRC partnered with the City of Anacortes to modify their Depot reconstruction master plan to include the rain garden and pervious paving display, with associated interpretive signage. The City has requested that their project consultant (Maker, Inc., Seattle, WA) provide a design for the rain garden and pervious paver display. Paul Dinnel, the SMRC project lead, met with the City of Anacortes and their consultant to discuss SMRC goals for this project and possibilities for location and designs and to review the initial design concept created by the consultant. Two project scenarios have been identified depending on timing and funding for the overall renovations.

1. Provide SMRC funds (\$17,000 or a portion thereof) via a contract to the City of Anacortes. The City will then accept the responsibility for rain garden/paver construction; or

2. The City will identify the location for the demonstration project and the SMRC will independently construct the rain garden and paver installation. In this case, the SMRC will contract with local contractors, team with the Skagit Conservation District and work with local community volunteers to accomplish construction.

### 2010 WORK PLAN

A contract with the City will be completed (if required) in 2010. The rain garden design will be completed by June 30, 2010. The rain garden and pervious pavers will be installed by December 31, 2010. The interpretive signage design should be completed by February 2011 and installed by May 2011.



## WSU SHORELINE PROCESSES WORKSHOPS

**Project Lead:** *Ivar Dolph*  
**Budget (2009-2011):** \$6,000

**NWSI Benchmarks:** *Education & Outreach*

**Project Objectives:** *Support and help organize two shoreline processes workshops. The workshops will educate local real estate professionals about shorelines and human impacts to shorelines in Skagit County. WSU Skagit County Beach Watcher staff will adopt WSU Thurston County shoreline curricula to educate local real estate professionals about shorelines and human impacts on shorelines. Real estate professionals are in a unique position to provide information to citizens purchasing shoreline property. Realtors and other professionals that are informed about shorelines, and human impacts on shorelines, will be better able to conduct business with shoreline properties that benefit the property owner and the environment, and follow appropriate regulations.*

### 2009 ACCOMPLISHMENTS

Skagit MRC partnered with WSU Beach Watchers/Shore Stewards to organize and host two shoreline processes workshops for real estate professionals. Planning is currently underway for the first workshop which will be held May 2010. WSU Thurston County shoreline curricula will be used for these workshops.

### 2010 WORK PLAN

The first workshop will be scheduled for May 2010.



## O' AVE BEACH ENHANCEMENT & LOW IMPACT DEVELOPMENT

**Project Lead:** *Connie Thoman*  
**Budget (2007-2009):** \$44,500

**NWSI Benchmarks:** *Marine Habitat  
Marine Water Quality  
Education/Outreach*

**Project Objectives:** *As part of the mitigation, the SMRC will work with the Port of Anacortes to develop a comprehensive design for shoreline restoration which will include improving the quality of beach substrate enhancing the overall aquatic habitat value, and providing safe public access. The SMRC will work with the Port of Anacortes to incorporate pervious paving and one or more rain garden areas to absorb/reduce/ filter runoff from warehouse roofs at the Port's O Avenue restoration project. This project will provide a number of examples of Low Impact Development (LID) projects and storm water filtering systems for landowners and agency officials to reference when planning future construction and repair projects or evaluating the possibility of retrofitting. Interpretive signage will be installed near the project site to explain the restoration efforts and need for and use of LID features.*

### 2009 ACCOMPLISHMENTS

Skagit MRC partnered with the Port of Anacortes for the beach restoration and enhancement project along O Avenue. Restoration work was scheduled to begin during the summer of 2008, but was postponed until August 2009 due to the Port's financial constraints and in-water work restrictions. Because restoration work did not begin until after the SMRC grant expired June 30, 2009, SMRC funding was used to complete the comprehensive design instead. The Port has completed the restoration and enhancement efforts including: placement of suitable sand/gravel as substrate onto the beach to improve the overall habitat for forage fish; planting native/salt-tolerant vegetation along the beach bank to provide beach shading; installing a narrow path alongside the adjacent road for safer pedestrian use; and removing the concrete bulkhead & creosote pilings. The Port incorporated Low Impact Development (LID) components into the comprehensive project design. The LID components include: Porous paving in the Port Office Building parking area as a way to infiltrate stormwater runoff; a demonstration rain garden on the north side of the Puget Sound Rope building to help capture and treat stormwater runoff from the roof of the building; and an artistic watering can feature will slowly direct stormwater runoff from the roof drainage system into the rain garden. In addition to the watering can conveyance system, a "living wall" of *Hydrangea anomala* variety *petiolaris* will be planted at the base of the wall of the rope building to help collect stormwater runoff from the roof. Interpretive signage will be installed upland of the beach along the pedestrian walkway to let users know that this is a mitigation site and will point out the LID measures that have been incorporated. The LID elements will be installed in 2010.

### 2010 WORK PLAN

The SMRC portion of this project concluded in June of 2009. Skagit MRC funding was used for the Comprehensive plan. The Port plans to use other funding sources to complete the LID portion of the project and interpretive signage in 2010. The SMRC will visit the project site during the February 11th SMRC meeting.



O Avenue Mitigation site



Hydrangea Anomala Living Wall



## NATIVE OYSTER RESTORATION

**Project Lead:** *Paul Dinnel*  
**Budget (2009-2011):** \$4,000

**NWSI Benchmarks:**

*Marine Life*  
*Sound Science*

**Project Objectives:** *Evaluate the success of the previous seven years of restoration effort. The dispersal range and number of native oyster larvae settling in and around Fidalgo Bay will be quantified. Volunteers will be recruited to monitor the survival & growth of the previously-planted seed oysters will continue to be monitored.*

### 2009 ACCOMPLISHMENTS

Skagit MRC partnered with Shannon Point Marine Center to monitor and evaluate the success of the native oyster restoration efforts in Fidalgo Bay. Volunteers were recruited to help monitor the survival and growth of oysters seeded between 2002 and 2006. Thirty bags of clean oyster shell were placed at intervals along the trestle in Fidalgo Bay in 2006 and again in 2007. These bags were sampled each year to assess natural native oyster recruits and dispersal range. In 2008 and 2009 additional areas in Fidalgo Bay were surveyed for oyster recruitment/dispersal and to look for new sites to place oyster seed. The eastern shore of Padilla Bay was also surveyed for a possible future seed planting location. Volunteers contributed approximately 205 hours to this project between 2007 & 2009. Paul Dinnel, the SMRC project lead, presented oyster restoration work in Fidalgo Bay at the Second West Coast Native Oyster Restoration Workshop and published a manuscript on the SMRC native oyster project in *Journal of Shellfish Research* in 2009. Evidence to date strongly suggests that in 2004 and 2006 the native oysters at the restoration site successfully spawned, recruited new oyster spat and dispersed oyster larvae to new locations. However, spawning/recruitment appeared to be unsuccessful in 2005, 2007, and 2008.



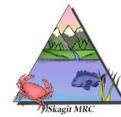
### 2010 WORK PLAN

Volunteers will be recruited to continue monitoring the survival, growth, and dispersal of native oysters in the spring and summer of 2010. New seed oysters may be planted in N. Fidalgo Bay and possibly Padilla Bay. The survival and growth data will be evaluated to determine the success of oyster restoration efforts in and around Fidalgo Bay.





2009 SMRC Projects	NWSI Benchmarks				
	Marine Habitats	Marine Life	Marine Water Quality	Sound Science	Education and Outreach
N. Skagit Bay Drift Cell Analysis				•	
Educational Materials					•
Port of Anacortes O Ave Beach Enhancement & LID	•		•		•
LID Demonstration Project (Anacortes Depot)			•		•
LID Brochure					•
WSU Beach Watchers Training					•
WSU Shore Stewards Program Support					•
WSU Shoreline Processes Workshops					•
WSU Escape Cord Education					•
Native Oyster Restoration		•		•	
Fidalgo Contaminant Assessment			•	•	
Fidalgo Bay Day					•
<i>Spartina</i> Survey & Removal	•				•
Lone Tree Pocket Estuary Restoration Monitoring	•	•		•	
Car Wash Kits			•		•
Smart Sponge/SWAT Demonstration			•		•
WSU Young Beach Stewards Training					•
March's Point Baseline Survey				•	
Cannery Pond Restoration Feasibility Study				•	
N. Skagit Bay Drift Cell Analysis				•	
Shannon Point Research Training Excursion					•



## 2009 SKAGIT COUNTY MRC MEMBERS

SMRC Member	Interest Group
Tracy Alker (Staff Support)	Skagit County Public Works
Paul Dinnel	Marine Scientist - Shannon Point Marine Center
Charles O'Hara (NWSC Rep)	Swinomish Tribe
Lawrence Joseph	Sauk-Suiattle Tribe
Kevin Bright	American Gold Seafoods
Ivar Dolph (NWSC Rep Alt)	Concerned Citizen
Polly Fischer	Sports Fishing
John Giboney	Concerned Citizen
Jim Ramaglia	Recreational Diving
Erica Pickett	Marine Dependent Business
Lori Kyle	Skagit Conservation District
Kari Odden (Secretary)	Skagit Land Trust
Connie Thoman	Port of Anacortes
Kurt Buchanan	Skagit Fisheries Enhancement Group
Scott Schuyler	Upper Skagit Indian Tribe
Christine Woodward (Vice-Chair)	Samish Tribe
Neil Borman (Chair)	Scientist
Betsy Stevenson	Skagit County Planning and Development Services
Paul Sund	Concerned Citizen
Britta Eschete	People for Puget Sound
Rebecca Spurling	Tesoro Refinery

