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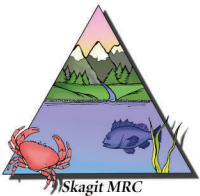
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Photo, Michele Pope

SKAGIT COUNTY MARINE RESOURCES COMMITTEE

Annual Report | **2010**



NORTHWEST STRAITS
marine conservation initiative

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2010 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
Kurt Buchanan	Skagit Fisheries Enhancement Group
Jim Ramaglia	Recreational Diving
Erica Pickett	Marine Dependent Business
Lori Kyle	Skagit Conservation District
Kari Odden	Skagit Land Trust
Connie Thoman	Port of Anacortes
Scott Schuyler	Upper Skagit Indian Tribe
Christine Woodward (Vice-Chair)	Samish Tribe
Neil Borman (Chair)	Scientist
Betsy Stevenson	Skagit County Planning Dept.
Peter Haase	RE-Sources
Michael Sato	People for Puget Sound
Rebecca Spurling	Tesoro Refinery

About the Skagit Marine Resources Committee

Established in 1999, the Skagit Marine Resources Committee (SMRC) is one of seven citizen-based advisory committees formed under the congressionally authorized Northwest Straits Marine Conservation Initiative (NWSI). The three primary 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 Mission Statement

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

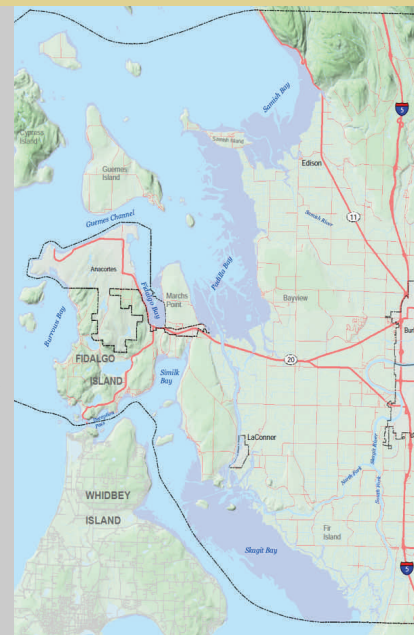
The SMRC members represent diverse interest groups who are vested in protecting and restoring the health of Puget Sound including: four tribes, marine scientists, non-profit environmental groups, local government, marine dependent businesses, the Port, recreational divers and fishermen, and concerned citizens. Staff support for the SMRC is provided by the Water Resources Section of the Skagit County Public Works Department. Committee members are appointed by the Skagit County Board of Commissioners.

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. 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. With the help of our partners and volunteers we are able to keep project costs low and promote citizen stewardship to achieve long term success.

Volunteers contributed over 2,188 hours of volunteer time towards SMRC related tasks in 2010

Skagit County Marine Resources Committee Project Area

Skagit County has approximately 275 miles of marine shoreline consisting of several rocky islands, beaches, bays, and pocket estuaries. The Skagit River is one of the largest rivers in the Pacific Northwest and is home to over 1/3 of the Puget Sound salmon. Skagit County has a population of over 118,000 people including four Indian tribes. Many people rely heavily on our local marine waters including the tribes, commercial shellfish growers & harvesters, fishermen, crabbers, divers, marinas, boaters, charters, cargo ships and oil refineries. Not only is restoring and protecting our marine waters important to the fish and wildlife, it is also important to our local economy and the overall well being of our local community.



The Northwest Straits Marine Conservation Initiative



The United States Congress authorized the Northwest Straits Marine Conservation Initiative (NWSI) in 1988 to restore and protect marine resources of the Northwest Straits. The Initiative is a coordinated effort that combines sound science with grassroots consensus building. 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.

The Northwest Straits Commission (NWSC) serves as a "board of directors" for the NWSI. The Commission is comprised of five gubernatorial representatives, one tribal representative appointed by the Secretary of the Interior, and one representative from each Marine Resources Committees on the NWSC. The NWSC holds monthly meetings rotating between counties. The Commission is responsible for supporting the MRCs by providing regional coordination, funding through grants, technical guidance, and training. The seven Marine Resources Committees established under the Initiative include: Clallam, Island, Jefferson, San Juan, Skagit, Snohomish and Whatcom counties.

In addition to supporting the MRCs, the Commission also manages projects on a regional scale including carrying out projects in partnership with tribal governments. Some of the projects include: derelict gear research and removal, forage fish habitat suitability modeling and mapping, tribal canoe journey water quality monitoring, and expansion of the Shore Stewards and Spartina survey programs.

Since its inception, the NWSI has received funding through an annual federal appropriations bill. This funding is directed to the NWSC through the National Oceanic and Atmospheric Administration. The NWSC allocates these funds to each MRC through an annual grant that enables them to carry out their activities. These funds are also used to pay for the operation and administration of the Commission, fund regional ecosystem projects and support a tribal project.

NWSI Performance Benchmarks

Marine Habitats

Protect and restore marine, coastal and near-shore 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.

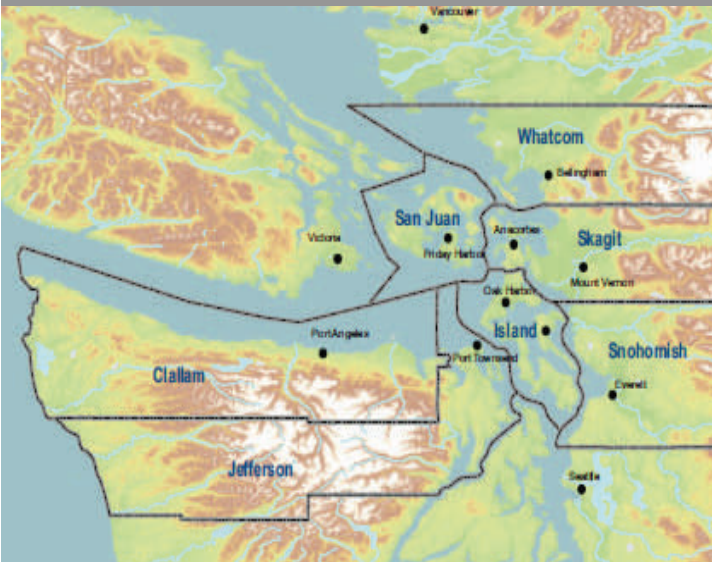
Sound Science

Collect high quality data and promote its use and dissemination.

Education/ Outreach

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

NORTHWEST STRAITS REGION 7 County MRCs ~1,460 Miles of Marine Shoreline



Administration and Action Projects Accomplishments and Workplan

This report highlights the SMRC activities and accomplishments and the specific NWSI Benchmarks each project addressed during 2010 as well as the work plan for 2011. SMRC selects restoration and conservation projects based on specific prioritized needs guided by the Performance Benchmarks set by the NWSI.

ADMINISTRATION

SMRC Meetings & Communication

Monthly SMRC meetings were held on the second Thursday of each month and were open to the public. Meeting locations rotated between Mount Vernon and the Padilla Bay Estuarine Research Reserve Center. Programs included: Fidalgo Bay trestle fire update; Puget Sound Partnership's local integration in the Whidbey Basin Action Area; Shannon Point Marine Center's Outreach Program; a site visit to the Port's O Avenue Beach Enhancement/LID project site; WA Sea Grant's Citizen Science Program; North Puget Sound Dissolved Oxygen Modeling; N. Skagit Bay Drift Cell Analysis; Fish & Wildlife Service Restoration and Conservation Programs; NWSC Sand Lance research; Macroalgae research in Puget Sound; Padilla Bay Estuarine Research Reserve Projects; Native Oyster Restoration in Fidalgo Bay; Public Participation Grant for the Custom Plywood Cleanup Site; and the Samish Tribe's Fidalgo Bay bank stabilization project. There was a full roster of SMRC members in 2010 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. SMRC officers included: Neil Borman - Chair, Christine Woodward - Vice-Chair, Charlie O'Hara—NWSC Rep, Ivar Dolph—NWSC Rep Alternate, and Kari Odden—Secretary. Two new members, Mike Sato representing People for Puget Sound and Pete Haase representing RE-Sources, were appointed to the SMRC in 2010. Paul Sund, a concerned citizen, resigned his membership with the SMRC. SMRC partnered with the NWSC to host a showing of the educational film "Beneath the Salish Sea." The film was widely publicized. An estimated 75 community members attended the event.

Grant Administration

Staff provided continued grant administrative support including: grant amendments, grant reports, contract management, project coordination, and budget tracking. The current grant expires June 30, 2011. SMRC is currently in the process of developing project proposals for the next round of grant funding for 2011-2013.

SMRC Website

The SMRC web page is currently located within the Skagit County Public Works website (<http://www.skagitcounty.net/MRC>). The SMRC web page is constantly updated to keep the public informed about SMRC meetings, projects and reports, stewardship opportunities, educational programs, special events, and current issues related to marine resources. The MRC Coordinator is currently working with NWSC Staff to develop a new and improved website for the SMRC.

Annual Report and Work Plan

The 2011 Annual Work Plan has been completed and submitted as a separate document and is also summarized in this report. The 2011 Work Plan is a "working document" and will need to be updated after the project proposals for the 2011-2013 MRC grant has been approved.

Training

This task includes attending NWSC meetings. Charlie O'Hara is the NWSC representative and Ivar Dolph is the alternate. Charlie and Ivar provided highlights from the NWSC meetings to the SMRC. Seven SMRC members attended the 2010 annual NWSC/MRC training conference at Orcas Island in November. Erica Pickett attended the "Planning for Climate Change" workshop through the Coastal Training Program and the NOAA Project Design & Evaluation Training through the Puget Sound Partnership.

Project Lead

Tracy Alker

2010 Budget

\$24,100

Total 2 YR Budget

\$44,100

Objectives

- Schedule & hold monthly meetings and track attendance
- Prepare & distribute agenda & minutes
- Prepare other logistical & communication functions as needed
- Prepare progress reports, project reports, & annual report for the NWSC
- Track & administer the budget
- Manage contracts
- Provide ongoing maintenance of SMRC website and/or development of content, design, images or other website features
- Prepare the annual Work Plan
- Attend NWSC training & additional conferences.
- Have a SMRC representative attend each NWSC meeting.

EDUCATIONAL MATERIALS

2010 Accomplishments

The SMRC produced and reprinted field guides to common seaweeds, invertebrates, and fishes found in Skagit County marine waters. In 2010 the guides were used as training tools for the WSU Beach Watchers. The field guides were also used by the WSU Beach Watchers to lead public beach walks. The Skagit MRC is currently updating the SMRC brochure, "A Report to the Community". The brochure provides an overview of the SMRC and summarizes the projects and accomplishments since 1999 when the SMRC was first established. These brochures are used to raise public awareness on issues impacting marine resources and the important SMRC projects that help restore and protect the marine Environment. In 2010 the field guides and brochures were distributed at educational events including Fidalgo Bay Day, Anacortes Waterfront Festival, Bivalve Bash, Swinomish Earth celebration, Mount Vernon High School Science Night, and the NWSC/MRC training conference. The response from the public has been very positive and we constantly receive requests for copies of the brochures and field guides.

2011 Work Plan

SMRC will update and print at least 100 MRC brochures before June 30, 2011. The brochures will be distributed during special events and at the MRC training conference.

Project Lead:
Ivar Dolph

2010 Budget:
\$2,000
Total 2 YR Budget:
\$2,300



NWSI Benchmark:
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." Distribute materials at public events to increase awareness.
- Update and reproduce at least 200 copies of the Skagit MRC "Report to the Community". Distribute materials at public events to increase awareness.

LOW IMPACT DEVELOPMENT BROCHURES

2010 Accomplishments

The SMRC is currently in the process of producing a brochure on Low Impact Development in Skagit County. The brochure will include current and proposed stormwater regulations, the impacts of stormwater runoff on marine resources, examples of how different LID techniques can minimize the impacts, locations of actual LID projects within Skagit County, and a list of resources. In 2010 the SMRC project lead gathered existing LID educational material and is now in the process of finalizing a list of local LID projects that currently exist in Skagit County as well as future LID projects. An outline for the brochure has been drafted and reviewed by the Skagit Conservation District.

2011 Work Plan

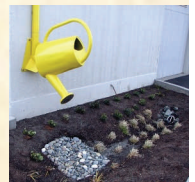
The brochures will be printed and available for distribution in April or May 2011.



Project Lead:
Betsy Stevenson

2010 Budget: \$2,000
Total 2 YR Budget: \$2,000

NWSI Benchmark:
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 and through public events to increase awareness.

WSU BEACH WATCHER TRAINING

2010 Accomplishments

Throughout 2010, WSU Beach Watchers have participated in a variety of education, research, and stewardship projects in Skagit County. SMRC relies heavily on these professionally trained citizen scientists to help with several important projects that are of special interest to the SMRC including: recreational crabber escape cord education, Shore Stewards program support, beach profile and biota monitoring, green building/LID education, Fidalgo Bay Day support, and WSU Beach Watcher program support. Skagit MRC partnered with WSU to recruit new volunteers in the Beach Watcher 100 hour core training program. This year training was split into two 50-hour module training sessions that took place April 6-30, 2010 and September 7– October 1, 2010. Over 20 presenters contributed their time and expertise towards this effort. Topics ranged from coastal processes to marine biology and status of high priority issues of the Puget Sound. Two field trips were also included as part of the training. The purpose for splitting the training time commitment into two modules was to provide an opportunity for more potential candidates to join. Unfortunately with the transition in hiring a new WSU Beach Watcher Coordinator in 2010, only twelve candidates signed up for training, four of which completed the training to become Beach Watchers. This brings the total of locally trained WSU Beach Watchers to 64. Two interns declared they would complete the course in 2011. Outreach to recruit new Beach Watcher volunteers occurred throughout 2010 and included advertising at and hosting a display booth at special events (i.e. Bivalve Bash, Skagit County Fair, navigating for the Futures), in newsletters, and on social media sites (i.e. Facebook (42 followers), Twitter (18 followers), and the WSU Beach Watcher website.

Project Lead:
Ivar Dolph

2010 Budget: \$10,000
Total 2 YR Budget: \$20,000

NWSI Benchmark:
Education & Outreach

**Volunteers Contributed Over
400 Hours**

Project Objectives:

- Support two WSU Beach Watcher 100 hour core training programs in Skagit County over a two year period.
- Enroll at least 30 new Beach Watcher volunteers.



WSU Beach Watcher Class 2010



Cypress Island Cleanup



Intertidal Monitoring, Sunset Beach

2011 Work Plan

Outreach to recruit new community members for the WSU Beach Watcher training in 2011 is currently underway. The first training module will take place in April, but depends on the transition of the new WSU Beach Watcher Coordinator. However, the current grant expires June 30, 2011. Skagit MRC is in the process of applying for the next grant and is proposing to continue the WSU Beach Watcher Training program.



Outreach



Microplastics Monitoring

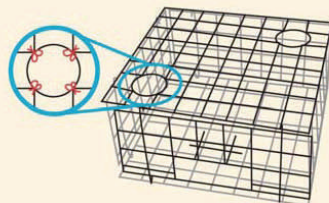
WSU RECREATIONAL CRABBER ESCAPE CORD EDUCATION

2010 Accomplishments

Skagit MRC partnered with WSU Beach Watchers to implement the Recreational Crabber Escape Cord Education Program. The goal is to help reduce crab mortality associated with lost crab pots by encouraging recreational crabbers to outfit their gear appropriately with escape cords. Escape cords are used to secure crab pot lids and escape panels. They are made of untreated 100% cotton cords or other natural fiber that will degrade in about three to four months if left in the water allowing crabs to escape. The NWSC is encouraging other MRCs to join Skagit and Snohomish Counties in a regional effort to reduce crab mortality through this program. Throughout the 2010 crabbing season, educational Escape Cord cards were made available at Anacortes, Burlington, and Mt. Vernon Ace Hardware stores, Cape Sante Harbormaster's office and fuel dock, West Marine Anacortes, Anacortes Marine Supply, Anderson's Store on Gumes Island, the Fidalgo Bay RV Park, Skyline Marina at the Harbor Master's office, Holiday Sports, and Wholesale Sports Warehouse. Escape cord cards and posters explained what escape cords are, why they should be used, how to use them, and where they are available. In addition, public presentations and public service announcements about escape cords were provided. In 2010, twelve WSU Skagit County Beach Watchers contributed 141 volunteer hours towards recreational crabber escape cord education activities including: planning and distributing approximately 390 Escape Cord outreach materials to local businesses, and handing out another 65 cards at local marinas and boat launches. Approximately 150 recreational crabbers were contacted during the 2010 crabbing season. The recreational crabber attendance at the two major boat launch sites in Skagit County were slightly less in 2010 than the 2009 season.

2011 Work Plan

The current grant expires June 30, 2011. Skagit MRC is in the process of applying for the next grant and is proposing to continue the escape cord outreach program. If funded, the program will likely be expanded to include cards with tips on how to prevent losing pots and a map showing areas to avoid, costs associated with lost crab pots and a number to call to report lost crab pots.



ESCAPE CORD



A FEW INCHES OF
ESCAPE CORD
CAN SAVE COUNTLESS
CRABS IF YOUR POT
BECOMES LOST

Project Lead:
Ivar Dolph

2010 Budget: \$10,000
Total 2 YR Budget: \$20,000

NWSI Benchmarks:
Education & Outreach

Volunteers Contributed 141 Hours

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.*

Want more crab?



Here's the catch...

There are an estimated 14,000 lost crab pots on the bottom of Puget Sound. And, on average, 1 in 4 pots are not properly equipped with escape / rot cord. What's the problem? These lost pots continue catching crabs for several years causing unwanted waste of this precious resource.

**Equip your pot with
biodegradable escape cord!**

www.escapecord.org

For more information on escape cord, contact Don Velasquez:
velasdev@dfw.wa.gov or (425) 775-1311, ext. 112

For free escape cord, contact Skagit WSU Beach Watchers
at 360-428-4270, ext. 223



Assembling Crabber Outreach Materials

SHANNON POINT RESEARCH TRAINING EXCURSION

2010 Accomplishments

Skagit MRC partnered with the Shannon Point Marine Center (SPMC) to conduct four boat-based marine sampling training excursions. The purpose was to provide an opportunity for citizen scientist volunteers to be trained in research vessel based sampling procedures using deep water sampling gear. Most volunteers are typically only trained in the classroom and along shorelines. SMRC funds were only used to pay for the boat. The marine scientists donated their time and equipment to train the volunteers. The first two training excursions occurred June 8 and 9, 2010. There was space for 10 participants on each cruise. Paul Dinnel, a Marine Scientist, provided the coordination and assisted with the training. In addition, one SPMC staff person skippered the vessel and also provided training. Itineraries and training schedules were identical for each day. Volunteers met at 9:00 a.m. at the SPMC where they were given a tour of the laboratory facilities, SCUBA dive locker, and sampling gear. The types of sampling gear used during the training cruises included: Remotely Operated Vehicle; small otter trawl; 30-meter beam trawl; 1-meter plankton net; Peterson bottom grab; Secchi disk for measuring turbidity; water collection bottle; YSI meter with probe for depth, temperature, pH, salinity, and dissolved oxygen measurements. As part of the training cruise, participants were given a tour of American Gold Seafoods Atlantic Salmonid Farm located offshore of southeast Cypress Island. The training cruises concluded with illustrations and discussions of feeder bluffs. An evaluation survey was sent to the participants using the internet SurveyMonkey application. Feedback from the survey forms will be used to fine tune the second set of cruises.

2011 Work Plan

Two additional training cruises are being planned for April 2011. This will provide training for 20 more volunteers. The training agenda will be the same as it was in 2010. An evaluation survey will be sent to all of the participants using the internet SurveyMonkey application. Results from the 2010 and 2011 surveys will be summarized in the project final report due June 2011.



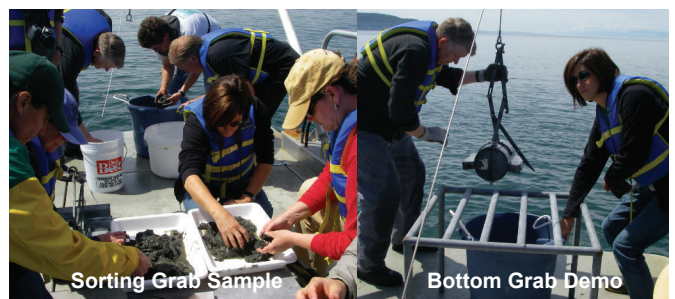
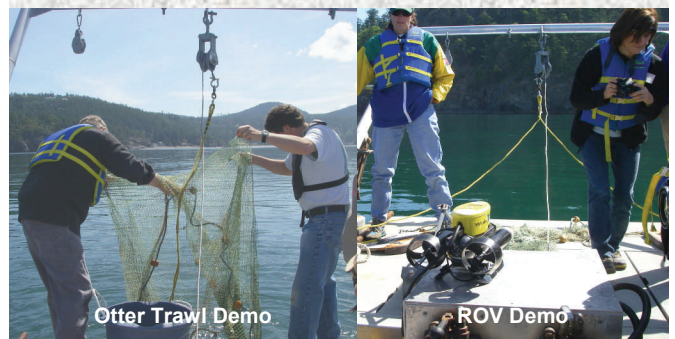
Project Lead:
Paul Dinnel

2010 Budget: \$1,200
Total 2 YR Budget: \$2,400

NWSI Benchmarks:
Education & Outreach

Volunteers Contributed 18 Hours

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.



FIDALGO BAY DAY

2010 Accomplishments

Skagit MRC sponsored and helped organize the seventh annual Fidalgo Bay Day event which took place September 18, 2010 at the Fidalgo Bay RV Park. The purpose of this educational event is to increase public awareness of the marine environment and encourage environmental stewardship to protect our local marine waters. The Fidalgo Bay Day subcommittee was formed in the beginning of the year to plan this year's event. A lot of time and effort goes into figuring out the logistics, securing insurance, permits, and venue, coordinating volunteers and educational booths, contacting partners and sponsors for food and equipment donations, getting materials for children's activities, securing educational films, advertising, etc. SMRC funding was used to secure a venue and street banner, pay for permits, newspaper advertisements, posters, signs, thank you cards, printing reports, and for miscellaneous items such as coffee, cups, condiments, etc. Approximately 350 visitors attended this year's event. Some of the different activities included a paddleboat pool, fish prints, marine creature stamps, face painting, a marine sea creature touch tank, and the educational film "Beneath the Salish Sea." Several kids participated in a passport activity which required them to visit each educational booth to find the answers to questions relating to the natural world. At the end the kids could trade in the completed passport for sea creature trading cards. This year's highlight was a beach seine demonstration. In addition to the educational activities, several local restaurants provided free samples of local chowders and grilled shellfish, and a delicious barbecued salmon lunch was provided by the Samish Tribe. Forty volunteers and twenty five organizations participated in this event.

2011 Work Plan

The current SMRC grant expires June 30, 2011. Skagit MRC is in the process of applying for the next grant and is proposing to continue to support the annual Fidalgo Bay Day event if funding allows. Planning will begin March 2011. The next Fidalgo Bay Day will likely occur on September 17, 2011. SMRC will need to secure a venue and street banner, line up advertisements, food permits, educational display booths, educational videos, first aid, drinks, kids activities, and volunteers.



Photo, Ivar Dolph

Project Lead:
Erica Pickett

2010 Budget: \$2,500
Total 2 YR Budget: \$5,000

NWSC Benchmark:
Education & Outreach

Volunteers Contributed Over 300 Hours

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 includes educational videos, hands-on demonstrations, displays, children's activities and samples of local seafood. A survey of participants is conducted to evaluate learning at this event.



Photo, Ivar Dolph



Photo, Ivar Dolph

WSU SHORE STEWARDS

2010 Accomplishments

Skagit MRC partnered with WSU Beach Watchers to host a series of shoreline landowner workshops, recruit new Shore Stewards, and produce and distribute electronic educational newsletters to the Shore Stewards each month. No Shore Stewards workshops were scheduled in 2010 due to the delay in hiring a WSU Shore Stewards Coordinator. The next workshop is set for April 16, 2011 at Padilla Bay. A subcommittee has been formed to start planning the workshop. The purpose for the workshops is to educate the shoreline landowners on the importance and application of a few habitat-friendly concepts and help create healthier waters and shores for birds, fish and wildlife. Workshop topics typically include: coastal processes and bluff dynamics, reducing land slide risk, shoreline regulations, conservation easements, septic maintenance, yard care, native and invasive plants, and local restoration projects. Welcome packets were sent to six new Shore Stewards who joined the program this fall. The welcome packets 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. Shore Stewards receive regular electronic newsletters that focus on topics of interest to shoreline residents as well as upcoming community events (e.g. upcoming talks, workshops, classes, native plant sales and other opportunities as well as links to additional information). Volunteers hosted the educational booth at several events including: the Bivalve Bash, the Skagit County Fair, and Navigating for the Future in Anacortes. Thirty people signed up to receive more information on the Shore Stewards program. There are currently 166 households and 236 individual Shore Stewards.

2011 Work Plan

The current SMRC grant expires June 30, 2011. Skagit MRC is in the process of applying for the next grant and is proposing to continue to support the WSU Shore Stewards program if funding allows. In addition, the WSU Shore Stewards Coordinator has taken another position. Planning for the 2011 WSU Shore Stewards Workshops will not take place until the Coordinator position has been filled.



Project Lead:
Ivar Dolph

2010 Budget: \$5,600
Total 2 YR Budget: \$11,200

NWSI Benchmark:
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. Recruit at least 75 new Shore Stewards and provide education to existing Shore Stewards through monthly newsletters. .



Shore Stewards Educational Booth

SPARTINA SURVEYS AND REMOVAL

2010 Accomplishments

Project Lead:
Tracy Alker

2010 Budget: \$3,100
Total 2 YR Budget: \$36,200

NWSI Benchmark:
Marine Habitat

Volunteers Contributed
184 Hours

Skagit MRC partnered with People for Puget Sound (PPS) to recruit and train kayaker volunteers to identify and map *Spartina*. SMRC funding was used to support the PPS *Spartina* Program Coordinator position and to produce educational materials. In 2010, PPS met with the Department of Agriculture to identify priority areas for *Spartina* surveys and control. PPS submitted an article about the *Spartina* program to the Wavelength magazine, a free publication for kayakers. The article can be viewed online at: www.wavelengthmagazine.com. Thirty-two volunteer kayakers were recruited to attend the paddler training sessions offered in 2010. The first training session took place during the first week of June in Cornet Bay. The second training session occurred in July in La Conner. Volunteers surveyed over 33 miles of Skagit County shoreline in 2010 including: Anacortes, Fidalgo Bay, La Conner, Snee-oosh shoreline, Dredge Islands, Guemes Island, Jack Island, Huckleberry Island, Goat Island, Hope Island, and Bayview Slough. Approximately 71 square meters of *Spartina* was mapped. The SMRC applied for and received an additional \$30,000 from the NWSC to eradicate *Spartina* throughout the Northwest Straits region by expanding the *Spartina* survey program to Jefferson, Clallam, and possibly Whatcom Counties. Planning is currently underway to recruit and train kayakers from these additional counties in the spring of 2011. The primary challenge faced in 2010 was the lack of accessibility to some of the private shorelines of Skagit County. The Samish Bay area needs to be surveyed (including Edison Slough) and there is no suitable public launch site. *Spartina* kayak volunteers continue to demonstrate that trained paddlers can become skilled citizen scientists and our local sea kayaking communities have a valuable role to play in the statewide eradication of invasive *Spartina*.

Project Objectives:

*Partner with People For Puget Sound and the Swinomish Indian 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. Support efforts to eradicate *Spartina* regionally by conducting training and surveys in Skagit, Jefferson, and Clallam Counties for invasive *Spartina* in using established protocols. Findings from this work will be reported to state and regional invasive species control entities. The objective is to educate residents on the extent and effects of invasive *Spartina* and what they can do to help eradicate it.*

2011 Work Plan

The current SMRC grant expires June 30, 2011. However, the additional 30,000 grant funding for the regional kayak surveys does not expire until December 31, 2011. Skagit MRC is in the process of applying for the next grant and is proposing to continue to support the *Spartina* Survey and Removal program.



MARCH'S POINT BASELINE SURVEY

2010 Accomplishments

Skagit MRC partnered with WSU Beach Watchers to collect baseline survey data at the NE March's Point boat ramp prior to the removal of the rock groins and other debris. This baseline data was used to augment the existing data collected at the same location in 2007. The same protocol established for the 2007 March's Point survey was slightly modified and used to conduct the baseline survey at March's Point in 2010. The monitoring protocol included a beach profile survey, vegetation survey along transects, beach substrate surveys along transects, and photo documentation. A benchmark on the Northeast corner of March's Point was established by the United States Army Corps of Engineers in 2009. This benchmark was used to create accurate beach profiles from existing data sets obtained during the 2007 monitoring at March's Point. Five Beach Watchers were trained and collected data over a two day period using the existing protocols along the set transects during low tide cycles in July. Nine Beach Watchers participated in photo documentation. The data that was collected was organized into an Excel spreadsheet. After the baseline survey was complete, Skagit MRC partnered with the County to remove the rock groins and debris and haul them away. The Skagit MRC Restoration Initiative funds were used to rent the equipment needed to remove the rock and debris. The County did not charge for labor.

Project Lead:
Ivar Dolph

2010 Budget: \$4,600
Total 2 YR Budget: \$4,600

NWSC Benchmark:
Sound Science

**Volunteers Contributed Over
60 Hours**

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.

2011 Work Plan

The current SMRC grant expires June 30, 2011. It is anticipated that the Skagit MRC Restoration Initiative funds will be used to support the WSU Beach Watchers in conducting a post-groin removal survey at NE March's Point in 2011. The data collected will be compared to the 2007 and 2010 baseline data to monitor changes in tidal vegetation (seaweed) and beach substrate (sand, gravel, etc.) and to identify erosional or depositional trends and other environmental impacts over time. The Skagit MRC will test the hypothesis that the two groins at the east March's Point boat ramp are an impediment to the sediment transport processes and are likely causing grain size coarsening and slope decrease on the beach face and a loss of forage fish habitat. Removing a portion of the two groins will restore the sediment transport processes and forage fish spawning habitat.



Removing Rock Groin
NE March's Point Boat Ramp

CANNERY POND RESTORATION FEASIBILITY STUDY

2010 Accomplishments

SMRC partnered with Western Washington University to support graduate student Hanna Seyl's feasibility study of the restoration of Cannery Pond on Fidalgo Island into a pocket estuary. Hanna studied historical documents and photos and beach seining. A team of Beach Watcher volunteers and scientists from the Shannon Point Marine Center assisted Hanna with the monthly beach seine sampling in the marine waters of Guemes Channel. Sampling started January 2010 and ended on December 15. Hanna also collected chemical, physical, and biological data along with sediment core samples inside Cannery Pond.

2011 Work Plan

The current SMRC grant expires June 30, 2011. 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.



Project Lead:
Paul Dinnel

2010 Budget: \$22,000
Total 2 YR Budget: \$34,000

NWSC Benchmark:
Science

Volunteers Contributed 165 Hours

Project Objectives:

Support a Master's level graduate student to re-search 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, a marine scientist and 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.



LOW IMPACT DEVELOPMENT DEMONSTRATION PROJECT (Anacortes Depot)

2010 Accomplishments

Skagit MRC partnered with the City of Anacortes to modify their Depot reconstruction master plan to include rain garden and pervious paving display, and associated interpretive signage. The purpose is to provide a highly visible example of Low Impact Development (LID) methods for the community of Anacortes. The most important facet of this project, the rain garden will capture rainwater from the depot building and infiltrate/treat this stormwater runoff instead of dumping it untreated into the City's stormwater drainage system. The City hired a project consultant (Maker, Inc., Seattle, WA) to 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 possible locations and designs and to review the initial design concept created by the consultant. The rain garden design has been completed. SMRC funds will be used to help for the

Project Lead:
Paul Dinnel

2010 Budget: \$9,600
Total 2 YR Budget: \$17,000

NWSI Benchmark:
Marine Water Quality



Project Objectives: *To raise public awareness on the impacts that stormwater runoff has on marine resources and show examples on how LID techniques can help minimize the impacts. The objective will be accomplished by partnering with local governments and other partners to install a Low Impact Development (LID) demonstration site 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.*

2011 Work Plan

The rain garden will be constructed in May 2011.

WSU SHORELINE PROCESSES WORKSHOPS

2010 Accomplishments

Skagit MRC partnered with WSU Beach Watchers to organize and host two shoreline processes workshops for real estate professionals. The Coordinator met with the Thurston County WSU Extension office to develop curricula for the workshops. A planning committee was formed. The topics selected for the workshops include: Low Impact Development (LID), shoreline processes, and septic systems in the watershed. Potential speakers include: Wade Bessett with the Skagit Department of Health; City of Anacortes LID Engineer; and Katrina Hoffman with WA Sea Grant. The process for licensing instructors was initiated.

Project Lead:
Ivar Dolph

2010 Budget: \$3,000
Total 2YR Budget: \$6,000

NWSI Benchmark:
Education & Outreach



Project Objectives: *Educate real estate professionals regarding shoreline processes so that they can educate shoreline property owners on the impacts they could have on the marine environment and environmentally friendly ways they can benefit their property by protecting their shorelines and marine resources. 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.*

2011 Work Plan

Two workshops are scheduled for March 4 and March 25, 2011. These will likely have to be re-scheduled pending hiring a new Beach Watcher Coordinator. The next step will be licensing for courses.

NATIVE OYSTER RESTORATION

2010 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 that were planted over a five year period (2002 - 2006). Thirty bags of clean oyster shell were placed at intervals along the trestle in Fidalgo Bay and assessed for natural oyster recruitment patterns. Additional areas in Fidalgo Bay were surveyed where substantial settlement of native oysters was observed. Evidence to date strongly suggests that in 2004, 2006, and 2009 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. The eastern shore of Padilla Bay was also surveyed for a possible future seed planting location. Paul Dinnel, the SMRC project lead, presented oyster restoration work in Fidalgo Bay at the Second West Coast Native Oyster Restoration Workshop in Suquamish Washington. Paul also helped to develop a native oyster restoration plan for North Puget Sound that calls for the establishment of 10 new restoration sites by 2020. SMRC funds were originally supposed to be used to purchase Olympia oyster seed this year, but due to the concerns over genetic viability we were unable to purchase the seed. Volunteers contributed approximately 78 hours to this project in 2010.

Project Lead:
Paul Dinnel

2010 Budget: \$4,000
Total 2 YR Budget: \$4,000

NWSI Benchmark:
Marine Life

Volunteers Contributed
78 Hours

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.

2011 Work Plan

Native oysters will continue to be monitored for survival, growth, and dispersal in 2011. Sometime in mid-January 2011, native oysters will be sampled at the trestle site and sent to a genetics lab in Oregon for analysis. The results from the genetics tests will be used to evaluate future new seed production. If successful, new seed oysters may be planted in North Fidalgo Bay and possibly Padilla Bay. The current grant expires June 30, 2011. Skagit MRC is in the process of applying for the next grant and is proposing to continue the Native Oyster Restoration Program.



STORM WATER ANTIMICROBIAL TREATMENT UNIT INSTALLATION AND MONITORING

2010 Accomplishments

Skagit MRC partnered with Skagit County and the Padilla Bay Estuarine Research Reserve to build and install a small stormwater antimicrobial treatment (SWAT) unit and test stormwater for fecal coliform at Bayview. The project site is located approximately 2 1/2 blocks uphill from the Padilla Bay shoreline. This location was selected based on the high levels of fecal coliform bacteria previously detected in the watershed around the Bayview area. The County constructed and installed the SWAT unit which consists of a long wooden box that houses 12 antimicrobial Smart Paks, a sediment settling sump with filter, and a pipe with a shut-off valve to control the amount of stormwater flowing through the unit. Twenty four antimicrobial Smart Paks were purchased, of which 12 were set aside to be used as replacements. Smart Pak products are constructed out of AbTech's patented Smart Sponge media based on innovative polymer technologies that are chemically selective to hydrocarbons and can destroy bacteria. Trained volunteers collected water samples during rain events in 2010. Water was collected before it entered the SWAT unit, after it filtered through one or two Smart Paks and at the out flow. The Padilla Bay Estuarine Research Reserve agreed to test the water samples at no cost except for the testing media. Volunteers ran into a few problems when collecting samples particularly with sediment buildup. Volunteers tried to turn the valves to only allow a small amount of water and sediment to flow through, but that didn't seem to help either. Straw was added to the SWAT unit to try to help control the sediment issue. The first tests showed that the water entering the system didn't contain any fecal coliform bacteria, which made it difficult to test the efficiency of the Smart Paks in destroying bacteria.

Project Lead:
Paul Dinnel

2010 Budget: \$19,000
Total 2 YR Budget: \$38,000

NWSI Benchmark:
Science

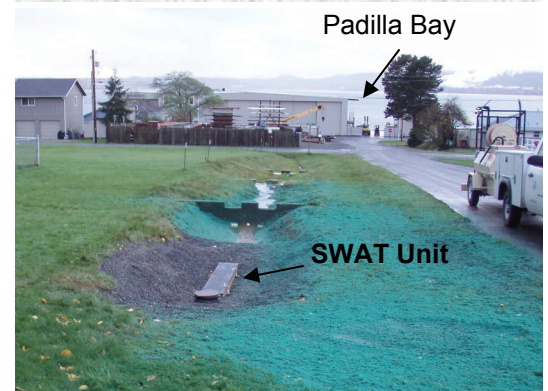
Volunteers Contributed 44 Hours

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.

2011 Work Plan

The final report evaluating the efficiency of the SWAT unit in destroying bacteria will be complete by June 30, 2011.



WSU YOUNG BEACH STEWARDS TRAINING

2010 Accomplishments

Skagit MRC partnered with WSU to support the Young Beach Stewards 12-hour core training program. Thirty students participated in the Young Beach Stewards program "From the Mountains to the Sea" curriculum at Mount Vernon High School. Eight 9th grade at-risk students participated in the program. The program consisted of two sessions. The first session was held December 2, 2009 through January 15, 2010. The second session was held March 15, 2010 through June 3, 2010. Course training was developed to accommodate limited English speaking skills. Topics included: marine science careers, watersheds, stormwater, water quality, marine biology, food webs, trophic levels, beach etiquette, tides, zonation, habitats, adaptations, and coastal processes. Guest speakers included Todd Woodard of the Samish Indian Natural Resource Department and Eric Shen, a WSU Beach Watcher. Classroom presentations included handouts, demonstrations, short videos and worksheets. Two field trips were provided in connection with course material being presented. The first field trip to Padilla Bay Estuarine Reserve included an upland walk, a work sheet for the educational center and a scavenger hunt for organisms found in muddy habitats. The second field trip was to Deception Pass State Park's Rosario Beach. The students donned their Young Beach Stewards hats to share what they had learned with approximately forty 4th and 5th grade students from Mount Vernon Christian School. The day concluded with the students completing a work sheet about their experience. A matching grant from Northwest Aquatic Marine Educators was secured to fund an additional field trip for the spring marine science class. In addition, students collected nature mapping bio-data. "From the Mountains to the Sea" course was coupled with Skagit Fisheries Enhancement Group's class on stream ecology and restoration. A tree planting restoration field trip was included. WSU Skagit County Young Beach Stewards program also partnered with the Padilla Bay Foundations Senior Culminating Project program in a class addressing marine science careers and provided opportunities for the students to select senior culminating projects. Volunteer activities included: two swale cleanups, salmon habitat restoration (Nookachamps Creek), beach cleanups (Swinomish Channel, Rosario Head, Hope Island), Spartina removal (Birch Bay), Science Night (Mount Vernon High School), Beach Naturalists (Rosario Head/Deception Pass), and Padilla Bay Naturalist training (Bay View). Each student has or will receive a certificate verifying they have completed. Several students expressed interest in signing up again next year. The new Beach Watcher Coordinator, who was hired in July, tried to organize another training in the fall but was unsuccessful. There might be another opportunity for training in the spring of 2011.

2011 Work Plan

The current SMRC grant expires June 30, 2011. Skagit MRC is in the process of applying for the next grant and is proposing to continue to support the WSU Young Stewards program if funding allows.

Project Lead:
Ivar Dolph

2010 Budget: \$3,600
Total 2 YR Budget: \$7,200

NWSI Benchmark:
Education & Outreach

Volunteers Contributed
375 Hours

Project Objectives: *Support two WSU Young Beach Stewards 12 hour core training programs for 9-12 grade level students in Skagit County over a two year period, Enroll at least 30 new Young Beach Stewards volunteers.*

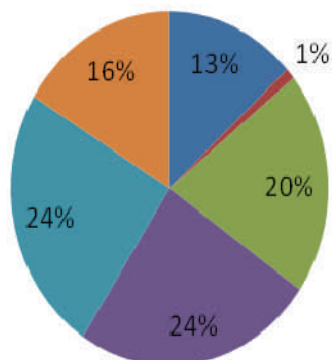


2010 SMRC Projects	Total Budget (2009 — 2011)	Regional or Parallel MRC Projects	NWSI Benchmarks				
			Marine Habitats	Marine Life	Marine Water Quality	Sound Science	Education and Outreach
Administration (Grant Management, Meetings, Training, MRC Display, Website etc)	\$ 44,100						
LID Demonstration Project	\$ 17,000	•			•		
LID Brochure	\$ 2,000						•
MRC Brochure & Field Guides	\$ 2,300						•
WSU Beach Watchers Training	\$ 20,000	•					•
WSU Shore Stewards Program Support	\$ 11,200	•					•
WSU Shoreline Processes Workshops	\$ 6,000						•
WSU Escape Cord Education	\$ 10,000	•					•
Native Oyster Restoration	\$ 4,000	•		•			
Fidalgo Bay Day	\$ 5,000						•
<i>Spartina</i> Survey & Removal	\$ 36,200	•	•				
SWAT Installation & Experimentation	\$ 38,000				•		
WSU Young Beach Stewards Training	\$ 7,200						•
March's Point Baseline Survey	\$ 4,600					•	
Cannery Pond Restoration Feasibility Study	\$ 34,000					•	
Shannon Point Research Training Excursion	\$ 2,400						•
Drift Cell Analysis—N. Skagit Bay (Project Complete, 2009)	\$ 26,000	•				•	
TOTAL BUDGET (2009—2011)	\$270,000						

Federal Funding History

- Grant Year 2000-2001: \$ 40,000
- Grant Year 2002-2003: \$ 10,000
- Grant Year 2003-2004: \$ 10,000
- Grant Year 2004-2005: \$ 60,000
- Grant Year 2005-2007: \$160,000
- Grant Year 2007-2009: \$184,000
- Grant Year 2009-2011: \$270,000

2009 - 2011 SMRC Projects %Budget /Benchmark



- Marine Habitats
- Marine Life
- Marine Water Quality
- Sound Science
- Education & Outreach
- Administration & Training