

# FRIENDS

of the San Juans

Summer 2013



*Pulling Together to Create Change*

*A Fisheye View of Shoreline Development*

*Safe Shipping in the Salish Sea*

*Get your Feet on the Beach Events*

# Pulling Together to Create Change



*Stephanie Buffum signs the International Treaty to Protect the Sacred in Vancouver, B.C. with Chief Phil Lane of the Ibanktonwan Dakota and Chicksaw Nations. Photo by Paul K. Anderson.*

Tribes throughout the Salish Sea are gearing up for this year's Intertribal Canoe Journey that travels to Quinault, WA. I have had the honor of participating in the Canoe Journey for 10 years. It is a physical, mental and spiritual challenge on every level and has been one of the most fulfilling events of my life. The success of the Journey depends on many people – pullers in the canoe and their ground crew - working together. This year, we will welcome canoes on July 18 on Lopez and July 19 on San Juan. I hope you will join us.

These long summer days provide an excellent time to paddle across our shared waters and to enjoy our favorite island activities: kayaking, hiking, wildlife viewing, fishing, gardening, and walking on our favorite local beaches. This summer will be full of decisions that will affect the future of our shorelines as the Critical Areas Ordinance and the Shoreline Master Program updates continue. If you care

about our marine waters and beaches, the best thing you can do this summer is stay engaged and informed, while having fun of course!

In this newsletter, we highlight our efforts to educate landowners, contractors and land managers, remove toxic creosote pilings, model sea level rise, protect our critical areas, and ensure that marine transport of coal and tar sands does not compromise our islands.

FRIENDS works collaboratively with many others to help preserve our environment, our economy, and in turn, our community. Much like those in the canoe, we must all work together to keep this a healthy, beautiful place to live, work and recreate.

Sincerely,

A handwritten signature in blue ink that reads "Stephanie Buffum Field".

Stephanie Buffum Field  
Executive Director

## FRIENDS of the San Juans

**MISSION:** To protect the land, water, sea, and livability of the San Juan Islands through science, education and advocacy.

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# *Supporting Coast Salish Tribes on their 2013 Canoe Journey to Quinault*

On July 18 and 19, FRIENDS will host Coast Salish tribal canoe families as they travel to their final destination, the Quinault Indian Nation on Washington's open coast. The Quinault Indian Nation and the Quinault Canoe Society is proudly hosting the Paddle to Quinault from August 1 -6, 2013.

Back in 1989, Emmitt Oliver, a Quinault Tribal elder organized the "Paddle to Seattle" as a part of the Washington State Centennial Ceremony, revitalizing the canoeing tradition that was lost for many years - this is now known as the Canoe Journey. The Canoe Journey has become a symbol of cultural revitalization on a national level. Anywhere from 90 US tribes, Canadian First Nations, and even tribal members from New Zealand are expected to join the celebration this year.

The Canoe Journey creates opportunities for tribal members to strengthen and reinforce their canoe

traditions. Cultural values like pride, cultural knowledge, learning how to paddle, respect, and sense of achievement are gained. The Journey is a drug and alcohol free event and embraces the rich cultural heritage of the Coast Salish people.

Canoes will arrive at Lopez Island's Odlin County Park on Thursday, July 18 (mid-day) and travel to San Juan Island's National Historical Park at English Camp on July 19. The public is welcome to join us for a community potluck starting at 6 pm both nights.

Since 2003, FRIENDS has hosted six Inter-tribal Canoe Journey stop-overs in the islands. We coordinate volunteers to assist with meals and boats to escort canoes on their crossings. If you would like to volunteer or make a donation to support the 2013 Canoe Journey stop-over in San Juan County, contact FRIENDS at 378-2319.

**Volunteers Needed – Help us Support our Tribal Neighbors!**



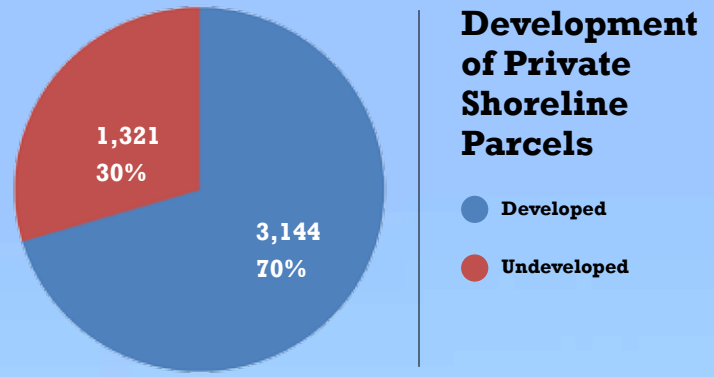
# A Fisheye View of Shoreline Development in San Juan County

San Juan County's shorelines are constantly changing, both naturally and through human actions. As the population of our islands increases, it is important that our growing human footprint ensures a healthy and prosperous future for the community as we protect the marine ecosystem that makes the San Juans so extraordinary.

In order to understand and monitor the health of our local shorelines, it is important to document areas that are important for fish and wildlife and to track human development patterns. With this knowledge, it will be easier to protect property, people and natural habitats into the future.

## Shoreline Development Status

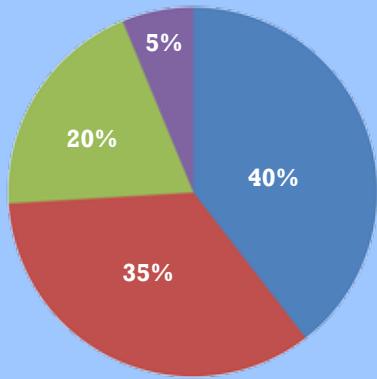
Roughly 5,000 waterfront tax parcels are located along San Juan County's 408 miles of marine shoreline. Over 90% of shoreline parcels are privately owned. Of privately-owned shoreline parcels (that are developable), two-thirds already have a primary structure such as a house.



## Human Changes to the Shoreline

Shore modifications impact how nearshore coastal systems function and evolve. Erosion, a natural and important process for our shorelines and their critters, is often disrupted by armoring from bulkheads. Efforts to obstruct erosion often diminish the very features that attracted coastal property





### Building Setbacks for Shoreline Parcels with Armor

- Under 50'
- 50'-100'
- 100'-200'
- Over 300'

owners in the first place, the beach and natural shoreline. Modification of shoreline habitat was identified as a top threat to marine ecosystems by the Marine Resources Committee in the Marine Stewardship Area Plan adopted by the San Juan County Council in the summer of 2007.

In San Juan County, over 900 shoreline parcels (18%) have armoring along at least a portion of their length, totaling 23 miles of hardened shores from a combination of private bulkheads and public and private roads. Most shoreline parcels with armoring also have a building on the property (88%). As one would expect, there is a strong relationship between the building setback and the likelihood of shoreline armoring. Seventy-four percent of parcels with building and bulkheads have a structure located within 100 feet of the shoreline. According to the County’s permit database, new residential bulkheads are installed at an average rate of 5 per year.

### Forage Fish Spawning Beaches

Surf smelt and sand lance lay their eggs on beaches in the upper portions of the intertidal zone. When these eggs hatch, the larval fish float out with the tide to become part of the food chain. Research by NOAA Fisheries has shown that surf smelt egg survival is reduced up to 50% along armored shorelines and that the removal of shoreline vegetation is often associated with shoreline armoring. Shoreline vegetation serves many important functions, including water quality, soil stability, shade, microclimate, insects for juvenile salmon, and fish and wildlife habitat.

## *The Shoreline Master Program Update*

San Juan County is updating its Shoreline Program this year. Since the previous update 15 years ago, we have learned a lot about the importance of marine species, nearshore habitats and coastal geology. The use of new local research and participation by all citizens can result in a sensible and comprehensive shoreline program update.

San Juan County is required to provide numerous opportunities for your input. This means that your participation is important and will make a difference.

To get involved or find more information, you can visit the following websites:

**San Juan County** - [www.co.san-juan.wa.us/smp/](http://www.co.san-juan.wa.us/smp/)

**Washington State Dept. of Ecology** - [www.ecy.wa.gov/programs/sea/shorelines/smp/](http://www.ecy.wa.gov/programs/sea/shorelines/smp/)

**FRIENDS of the San Juans** - [www.sanjuans.org](http://www.sanjuans.org)

**Futurewise** – [www.futurewise.org](http://www.futurewise.org)

To date, ten miles of surf smelt and/or Pacific sand lance spawning beaches have been documented in San Juan County. Approximately 2.5 miles (25%) of known spawning beaches are currently in conservation, public or educational ownership. The remaining 7.5 miles (75%) of documented forage fish spawning habitat occurs on privately owned, primarily residential, shoreline parcels. Shoreline armoring coincident with documented spawn habitat occurs along 1.5 linear miles of shoreline (15%) and includes armor from both private residential bulkheads and county shoreline roads.

## Working Together to Protect Local Shorelines

To ensure the long-term protection of shorelines that are vital for salmon recovery, FRIENDS has partnered with the San Juan Preservation Trust on an innovative program to develop conservation easements for use along multiple, adjacent waterfront properties. To introduce and gain feedback on this new program, the groups organized neighborhood outreach events in priority salmon recovery regions of the county, including Waldron, Northwest Orcas, and south Lopez. These fruitful meetings have evolved into conversations with interested landowners about partnering through conservation easements for multiple shorelines. This voluntary protection project is a win-win for property owners and local species, habitats and ecosystems. The resulting neighborhood easements will ensure permanent protection of key natural shoreline features and geologic processes across property boundaries. In addition to financial benefits, the voluntary easements will help participating landowners accomplish their long-term ownership objectives, leaving a legacy of conservation for everyone.

**“With neighborhood involvement, we can continue to enjoy our beaches and protect them, too.”**

**Debra Clausen, Director of Conservation,  
The San Juan Preservation Trust**

## Salmon Recovery

Outmigrating juvenile salmon, including Chinook, coho, chum and pink have been documented in all regions and all shoreline types (rocky, feeder bluff, estuary, etc.) of the County. Local and regional research into juvenile salmon diets find that a combination of plankton (particularly crab larvae), terrestrial insects and small forage fish are all important food items for juvenile Chinook. Healthy shorelines provide important nursery, feeding and migratory habitats for young salmon from multiple Puget Sound and British Columbia stocks, helping them thrive in this critical early marine life history stage.

Protection of remaining intact marine shorelines and coastal processes, such as forage fish spawning beaches, well-forested shorelines and sediment supply bluffs (also known as feeder bluffs), along key migratory pathways for juvenile salmon is the top recovery strategy for San Juan County in the Puget Sound Chinook Salmon Recovery Plan under the Endangered Species Act. For more information on local protection efforts and benefits for landowners see sidebar - “working together to protect local shorelines.”

Detailed information on priority habitats and development patterns can be used to inform the policies, the cumulative impacts analysis and restoration planning elements of the ongoing Shoreline Master Program update.

The accompanying map of Blind Bay on Shaw Island shows where shoreline development impacts priority marine habitats. In this example, armored roads are causing direct burial and disruption of natural sediment supply reducing the quality of known surf smelt spawning beaches.

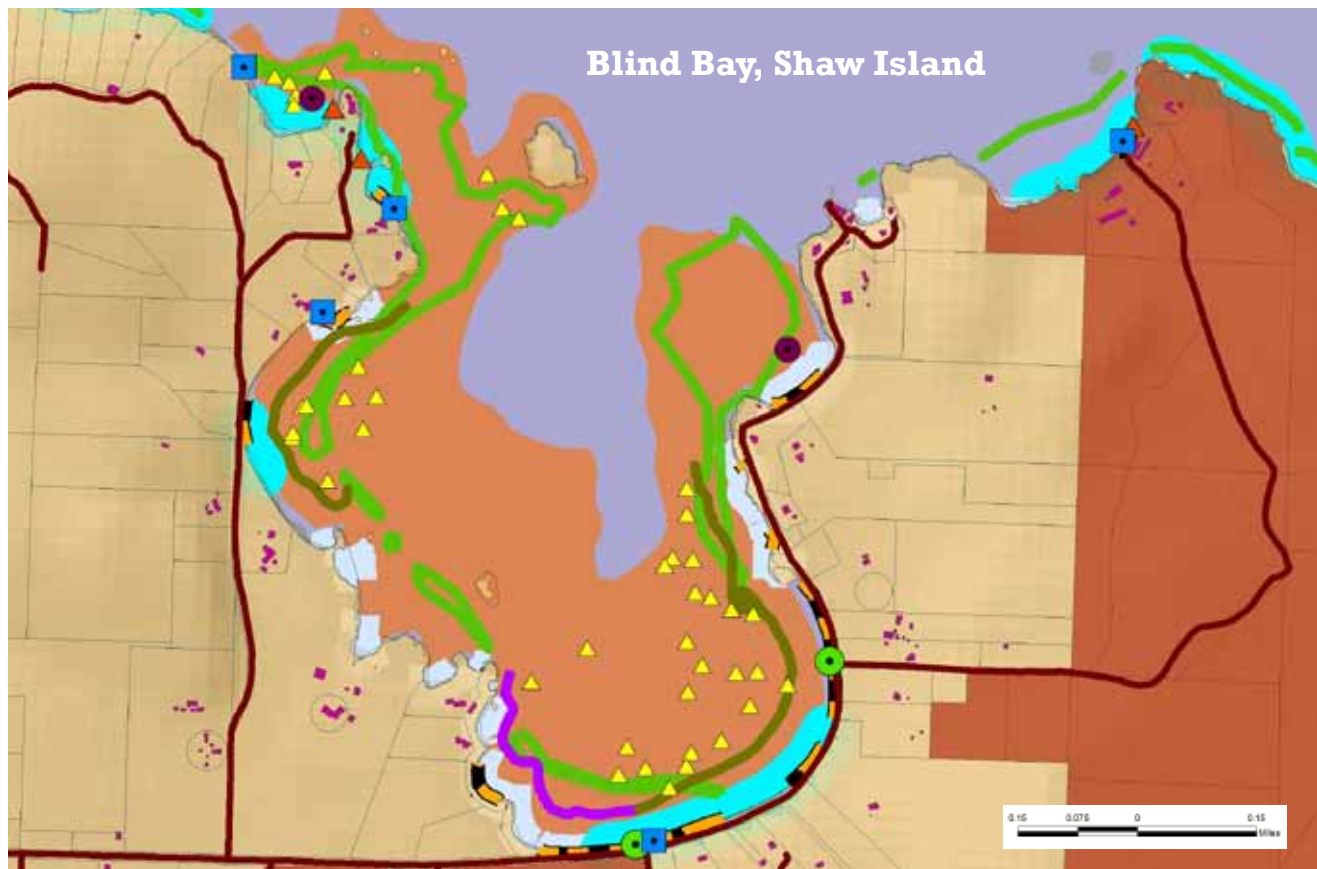
## Restoration vs. Protection

While FRIENDS is an active proponent of local shoreline restoration actions, we also recognize that the protection of existing, intact habitat remains the least expensive, most effective way to support natural habitat. From the point of view of the ecosystem, protection is the only approach that ensures the retention of the full suite of shoreline functions and values. In terms of resources - dollars,

time and effort - restoration can never compete with the efficiency of leaving something intact in the first place.

As restoration success is limited by feasibility and high cost, improved protection is essential to ensuring that habitat and habitat forming processes are maintained into the future. While straightforward, achieving protection will not be a simple task. For example, the Puget Sound Partnership estimates that new armoring in Puget Sound still outpaces armor removal at a 10:1 ratio. Additional shoreline development pressures and

sea level rise are expected to further increase demand for armoring. Improved, expanded and more innovative voluntary and regulatory protection policies and incentives will be required. Over the long haul, protection benefits us all - keeping property values high, protecting structures and people from erosion and flood hazards, maintaining high quality viewsheds, saving money, and supporting the marine food web that sustains seabirds, fish, marine mammals, and all of us who live, work and play here in our special coastal community.



- Building (SJC LiDAR 2009 and Town of Friday Harbor)
- County Roads (SJC)
- Conservation Easement/Ownership
- Armor
- Dock
- Improved Boat Ramp
- Piling
- Groin
- Mooring Buoy
- Drift Cell Right to Left (CGS 2010)
- Drift Cell Left to Right (CGS 2010)
- Documented Forage Fish Spawning Habitat (WDFW and FSJ 2004)
- Pacific Herring Spawning Grounds (WDFW 2014)
- Potential Forage Fish Habitat (PIAT 2012)
- Deep Water Edge of Eelgrass (FSJ, DNR and UW 2004)

*This map of Blind Bay provides an example of the detailed information on priority habitats and development patterns available for all of San Juan County. The data from these maps can be used to inform shoreline research, restoration and protection efforts, and policy updates like the Shoreline Master Program and Critical Areas Ordinance.*

# Safe Shipping is

Hundreds of thousands of tourists enjoy the San Juan Islands annually. Maintaining the beauty of these islands is critical to preserving our local and regional economy. Proposed fossil fuel export terminals, if permitted, would impact our waters, shorelines, climate and the economy that depends on a healthy marine environment.

According to the Outdoor Industry Association, outdoor recreation supports 115,000 jobs and contributes \$11.7 billion to Washington State's economy. In San Juan County, tourism generated over \$158 million dollars in spending and 1,850 jobs in 2012.

In an effort to ensure that adverse maritime impacts don't compromise the Salish Sea's marine environment and economic integrity, FRIENDS established a Safe Shipping Program and is a founding member of the Safe Shipping Alliance of the Salish Sea. We seek to inform the public of major changes in maritime trade impacts, engage citizens in commenting opportunities and generate cross-border political support for increased shipping safety standards.

Numerous organizations, tribes and individuals have reached across borders to oppose fossil fuel export terminals. And so far this story shows the power

of advocacy as proponents have scrapped plans for three of the original six coal export terminals. Also, the B.C. government officially expressed its opposition to the proposed Northern Gateway tar sands pipeline project (which would run from Alberta to Kitimat, B.C.), saying it fails to address the province's environmental concerns; this doesn't mean this project is dead, but it is a step forward.

## The Gateway Pacific Terminal

Unfortunately, the Gateway Pacific Terminal (GPT) at Cherry Point, near Bellingham, is still on the table (and is the closest terminal to San Juan County). GPT could ship up to 48 million metric tons (MMT) of coal every year to Asia. These ships would pass through our waters, increasing the threats of collisions and oil spills. Burning this coal would create 96 million metric tons of carbon dioxide (CO<sub>2</sub>) every year and would more than double our state's total annual greenhouse gas emissions (of 76.64 MMT). Sending coal to Asia also conflicts with Washington State's efforts to set progressive greenhouse gas emission reduction policies.

## Safe Shipping Alliance Members Sign International Treaty

FRIENDS collaborates with First Nations tribes, U.S. tribes and Canadian and American non-profit organizations on safe shipping issues. To kick off this working group, FRIENDS hosted a meeting in Vancouver this past March. Attendees signed the International Treaty to Protect the Sacred from Tar Sands Projects, joining in solidarity with sovereign Indigenous Nations, tribes, and governments. To view this Treaty visit [www.protectthesacred.org](http://www.protectthesacred.org).



Photo by Paul K. Anderson



# in the Salish Sea

*“San Juan County is at the center of existing and proposed fossil fuel export projects. We have everything to lose and nothing to gain. It is important that our community stay informed, get involved and be part of the public input process.”*

*San Olson, FRIENDS’ Board President and former Naval Officer*

FRIENDS has been engaging the community in the GPT public input process for over a year now – and what a year it’s been! During an initial comment period, agencies received over 124,000 comments, including 450 directly from Islanders who voiced their concerns in person at the Friday Harbor scoping hearing. Many requested a study of the full impacts of the coal export program – from Montana’s mines, along the rails and through our waters, to Asian markets, as well as the associated CO<sub>2</sub> emissions. FRIENDS’ comments can be found at [sanjuans.org/safeshipping](http://sanjuans.org/safeshipping).

## **Area-wide Review of all Northwest Coal Terminals Rejected**

While tens of thousands of people from across the Northwest – citizens, public officials, organizations, health care professionals, businesses and Tribes

– called for a thorough review of the combined impacts of the proposed coal export terminals, the U.S. Army Corps of Engineers (USACE) decided not to conduct this area-wide approach. The USACE is the lead federal agency reviewing Northwest coal export terminals. However, our collective voices built an unprecedented amount of power, giving our state leadership the backing to act boldly. It is important to keep the pressure on as there are still state environmental reviews that can look at greater impacts.

FRIENDS will continue to work with our volunteers and partner organizations on this issue; sign-up for our email updates at [sanjuans.org](http://sanjuans.org). You can also join with volunteers involved in the Orcas, Lopez and San Juan Island NO COALitions. These groups are dedicated to increasing our community’s awareness about the impacts of coal export.

It is through all of our collective efforts that we will defend the Salish Sea and its inhabitants from the threats of oil spills and global climate change. We welcome your involvement and support!

## **Take action!**

Governors Inslee (WA) and Kitzhaber (OR) must ensure state agencies conduct the broadest possible analysis of the cumulative impacts of the coal export proposals through the State Environmental Protection Act process. A full accounting of the costs of coal is necessary so informed decisions can be made. Call the governors and ask them to do what the USACE declined to do. Visit [sanjuans.org/safeshipping](http://sanjuans.org/safeshipping) for talking points.

**Gov. Inslee: 360-902-4111**

**Gov. Kitzhaber: 503-378-4582**

*Photo by Chris Teren*

The

# Salish Sea: In Danger

## A Rich, But Vulnerable Sea

**37**  
mammals

**172**  
birds

Nearly **300**  
fish

More than **3,000**  
macroinvertebrates

**113** of these have been listed as either threatened, endangered, of concern, or candidates for listing on the US Endangered Species Act or Canada's Species at Risk Act

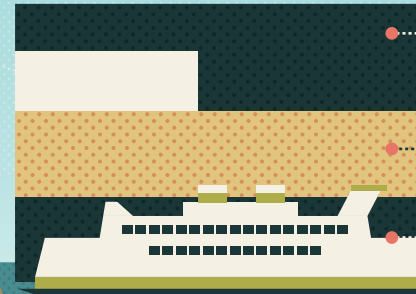
Cape Size Dry Bulk Carrier

Aframax Oil Tanker

Super Class Ferry

Adult Southern Resident Orca Whale

Sea Kayaker



## An Interconnected Ecosystem

**Chinook salmon** rely on herring as a food source



Puget Sound Chinook salmon populations are at 10% of their historic numbers

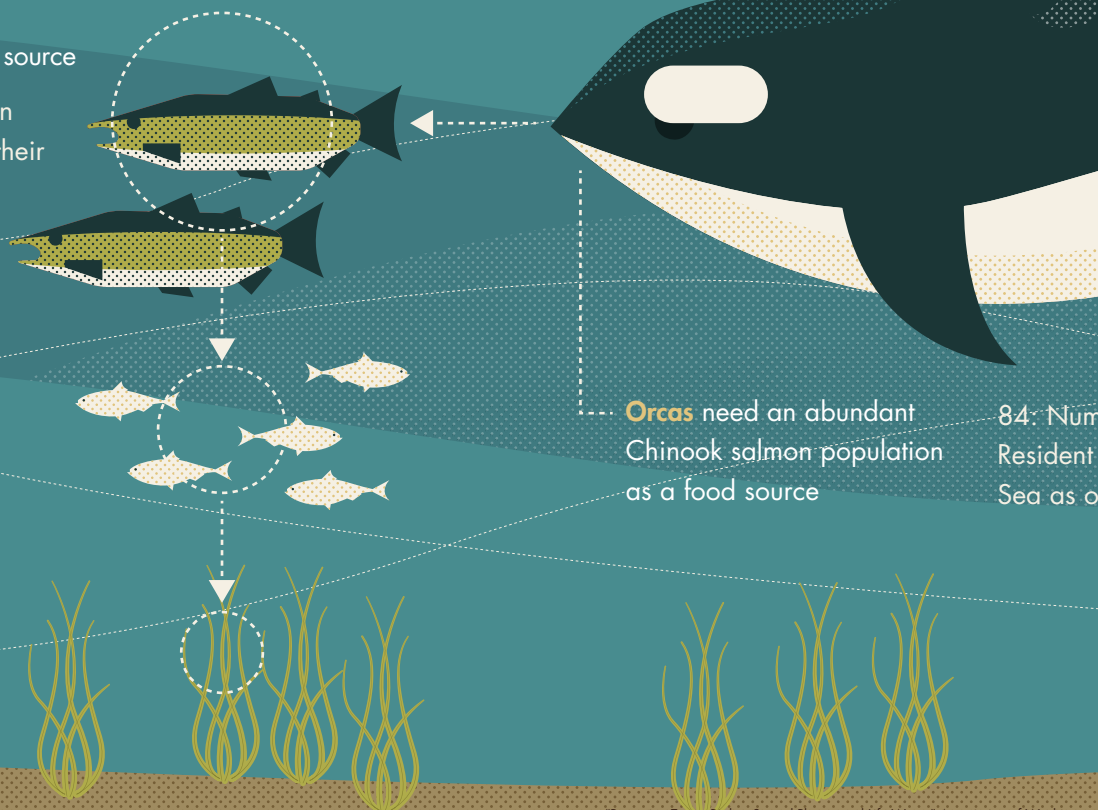
**Herring** spawn on eelgrass

Herring populations at Cherry Point have decreased 94% since the construction of the Westshore coal terminal and the Cherry Point oil refinery



**Eelgrass** provides habitat for herring

New terminals and shipping piers will block sunlight from reaching eelgrass



**Orcas** need an abundant Chinook salmon population as a food source

84% of Southern Resident Orca population

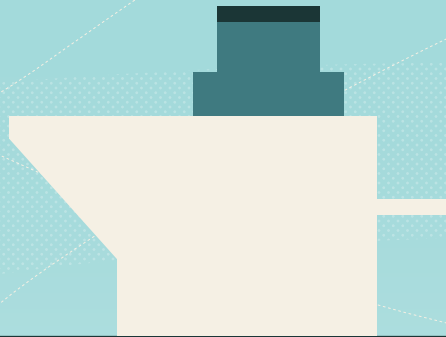
Sources: Center for Whale Research, Washington State Department of Fish and Wildlife, [http://www.nwr.noaa.gov/protected\\_species/salmon\\_steelhead/recovery\\_planning\\_and\\_implementation/puget\\_sound/puget\\_sound\\_chinook\\_recovery\\_plan.html](http://www.nwr.noaa.gov/protected_species/salmon_steelhead/recovery_planning_and_implementation/puget_sound/puget_sound_chinook_recovery_plan.html)

"Protecting Treaty Rights, Sacred Places, and Life Ways," Association of Washington, <http://www.seas.gwo.edu/~dorpit/VTRA/Mokah/VTRA%202010%20-%2020PG>, <http://www.fwi.net/profiles/blogs/turning-vancouver-into-the-br>

# nger

The Salish Sea is one of the world's largest and biologically rich inland seas. This international water body includes Washington State's Puget Sound, the Strait of Juan de Fuca and the San Juan Islands as well as British Columbia's Gulf Islands and the Strait of Georgia. The name honors the first inhabitants of the region, the Coast Salish. Take a look at the interconnectivity of the Salish Sea and see how increased traffic and a major spill could devastate our environment and our economy.

|    | Avg. Feet | Avg. Dead-weight Tons | Avg. Gallons of Fuel |
|----|-----------|-----------------------|----------------------|
| er | 1,300     | 180,000               | 1,600,000            |
| er | 803       | 110,000               | 1,300,000            |
| ry | 382       | 2,800                 | 45,000               |
| le | 23        | 2.5                   | 0                    |
| ak | 17        | 0                     | 0                    |



## The Risk of Increased Ship Traffic

**10,000** Large ships transited through the Salish Sea in 2012

**+2,000** Proposed large ships to transit through the Salish Sea

**=** Increased underwater noise, threat of an oil spill, risk of accidents and interference with wildlife

**Cape Size Dry Bulk Carrier:** Up to 487 ships would export 48 million tons of coal annually from the proposed Gateway Pacific Terminal near Bellingham, WA.

**Oil Tanker**

**Washington State Ferry**

**The ships are getting bigger; a single spill from one of these massive ships could devastate the Salish Sea**

## A Fragile Economy

**\$3.8 billion:** Yearly economic benefit generated by Washington State's commercial fishing industry

**60,250:** Yearly jobs provided by the fishing industry alone

**Washington State Tourism is also at risk**

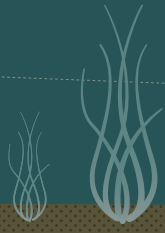
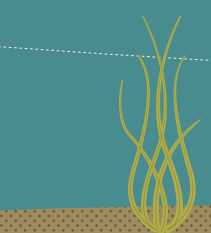
**\$1.1 billion:** Boost to the economy from recreational fishing

**\$1.5 billion:** Economic benefit of wildlife viewing

**\$158 million:** Annual income to San Juan County from 750,000 tourists

Number of Southern orca in the Salish Sea as of December 2012

Currently listed as endangered



# Advocacy Program Updates

Requests for shoreline development increased this past winter and spring. FRIENDS continues to stand up where necessary to defend the health of our shoreline ecosystems.

## **Docks**

In February and March, the County Hearing Examiner held hearings for two single-user docks, one in Neil Bay on San Juan Island and one in Davis Bay on Lopez Island. The Hearing Examiner denied the Neil Bay dock, concluding that the applicant had not proven that his existing mooring buoy and dinghy dock were inadequate, or that the Port of Friday Harbor had no moorage. On Lopez, the Davis Bay community mobilized in opposition to the first dock proposed for the natural embayment. In addition, neighbors questioned the applicants' claim that neither their two mooring buoys nor the option of moorage at local marinas was good enough, reasoning that similar facilities had served their

families well for many years. After a full day-and-a-half of testimony, the Hearing Examiner sent the application back for further analysis of the dock's aesthetic and ecological impacts on the dock-free bay.

## **Bulkheads**

*North San Juan* – On January 1, 2013, the County Hearing Examiner approved a rock bulkhead on potential surf smelt spawning habitat on the grounds that it was necessary to “protect” trees. Although the applicant had not identified a long-term erosion rate, and the only suggested rate showed that a house would not be threatened for 100-200 years, the decision deemed erosion at the site serious due to the existence of exposed tree roots, a naturally occurring feature common to many local shorelines. To protect shoreline vegetation and potential surf smelt habitat from an unnecessary bulkhead, FRIENDS

appealed the permit to the Shorelines Hearings Board, which held a hearing in Friday Harbor on June 5 and 6. We anticipate a decision by the end of the summer.

*Northwest San Juan* – Four years ago, the Shorelines Hearings Board approved a permit for a bulkhead on a documented surf smelt spawning beach to obstruct erosion along a shoreline with a few trees, a lawn, and landscaping. That bulkhead resulted in a significant alteration to the shoreline, including tree and vegetation removal. In May, the County Hearing Examiner approved a new bulkhead on the neighboring parcel, despite likely impacts to riparian habitats, forage fish spawning habitat, and the prey base for juvenile salmon. The Hearing Examiner also dismissed FRIENDS' concern that sea level rise would eventually squeeze out the spawning habitat between the rock wall



# Critical Areas Ordinance

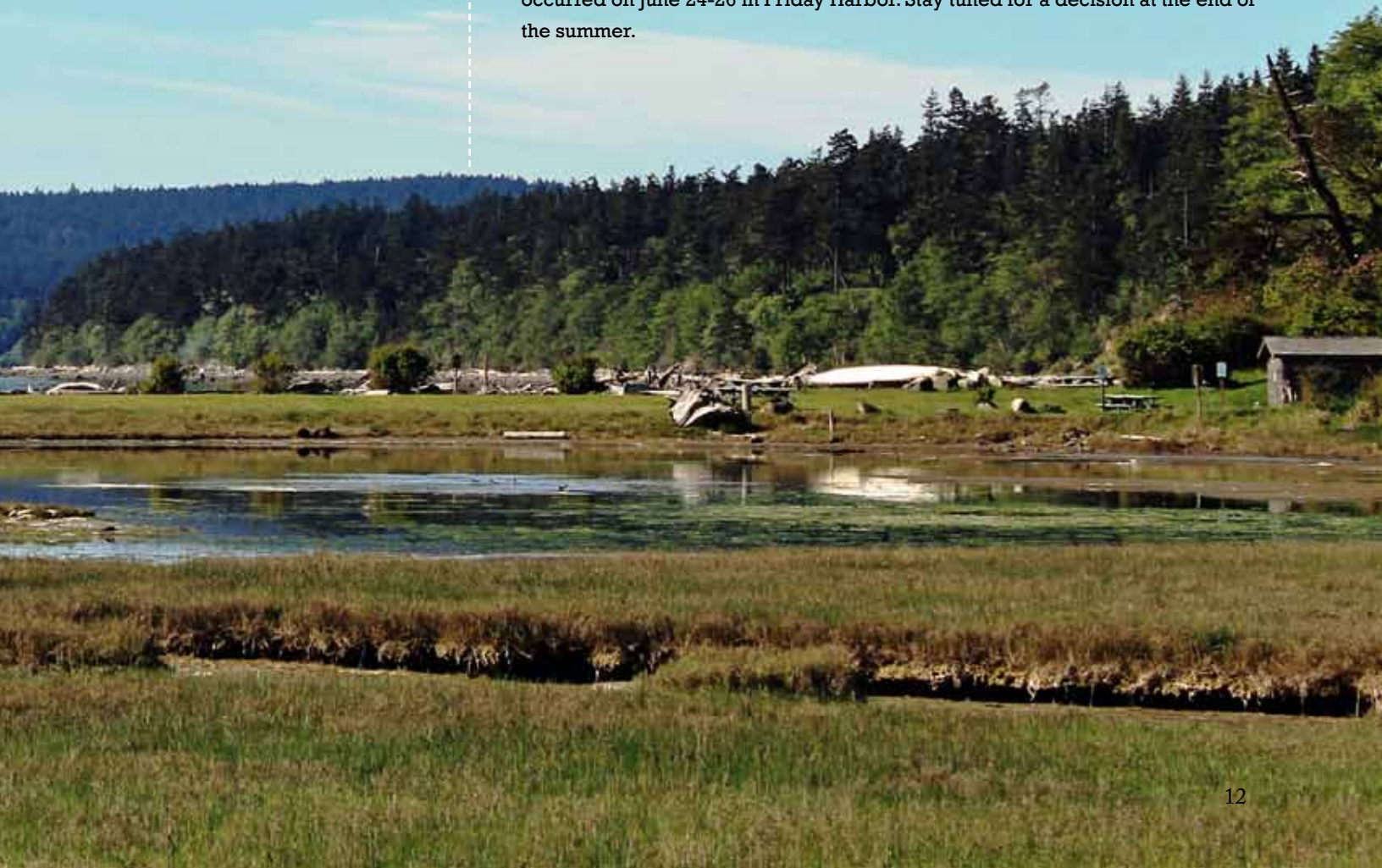
and the rising seas. FRIENDS has appealed this decision to the Shorelines Hearings Board.

**Unpermitted Bulkheads**—Two bulkheads built without permits over the past two years are now making their way through the County’s permit process. One was built on surf smelt spawning habitat on Agate Beach on Lopez, after a leak in an upland water line caused a small amount of erosion and the water line operator and a neighbor responded by armoring the shoreline. The second bulkhead, on Blakely Island, significantly altered the beach in front of it. FRIENDS intends to comment on both of these unpermitted actions.

On December 3, 2012, after more than seven years and several false starts, the San Juan County Council completed its update of the County’s Critical Areas Ordinance (“CAO”), adopting four ordinances to address activities in and near wetlands, fish and wildlife habitat, flood zones, and geologically hazardous areas. While FRIENDS appreciated the effort to come into compliance with Washington’s Growth Management Act, we raised numerous concerns that the County left unaddressed during the update. On January 31, 2013, FRIENDS filed a petition for review with Washington’s Growth Management Hearings Board, asking it to confirm that a CAO does not protect critical areas where it:

- **Excludes small wetlands;**
- **Allows 40% of pollution to flow into streams and the seas;**
- **Authorizes numerous unmonitored activities in wetlands, streams, shorelines, and their buffers, such as septic systems, well drilling, 4,000 sq. ft. gardens, and yearly cutting of 20% of vegetation;**
- **Relies too heavily on the myth of mitigation - compensatory mitigation that science has revealed as unsuccessful; and much more.**

Four other organizations appealed the CAO as well, though they seek a different outcome than FRIENDS, requesting that the Board allow even more activities and development in critical areas and their buffers. The Growth Board hearing occurred on June 24-26 in Friday Harbor. Stay tuned for a decision at the end of the summer.



# Science Program Updates

## Forage Fish Surveys Underway



*15 volunteers were trained to help with this boat-based research.*

FRIENDS is conducting targeted surveys for forage fish spawning beaches. Forage fish are a critical food source for fish and wildlife. Current maps very likely underestimate where surf smelt and sand lance spawn. This limits protections for this critical habitat. For the next few years, FRIENDS will survey targeted beaches looking for surf smelt and Pacific sand lance spawning eggs.

## Free Creosote Removal for Landowners!

FRIENDS has partnered with the Washington State Department of Natural Resources (DNR) to remove unnecessary toxic creosote-treated pilings and old structures from tidelands in San Juan County with interested public and private landowners. The goal of the project is to improve water quality and overall ecosystem health for salmon and their prey. Creosote-treated wood was commonly used in marine structures throughout the Salish Sea for more than a century during a period of rapid development. Like other chemical compounds that were innovations in their time, creosote received broad use without full knowledge of its long-term consequences.

Research now shows that creosote contains more than 50 carcinogens and is toxic to marine fish and other wildlife.

FRIENDS and DNR are currently seeking property owners who are interested in removing their in-water creosote-treated pilings. This program is voluntary and free to property owners. To participate, contact Tina Whitman (FRIENDS) at 360-378-2319 or Lisa Kaufman (DNR) at 360-854-2808.

## Planning for Sea Level Rise

San Juan County's shorelines support marine food webs and our local economy. To help improve our understanding of the potential impacts of sea level rise on local shorelines, FRIENDS has partnered with a multidisciplinary, public-private technical team of shoreline research and policy experts. The project aims to improve the understanding of local areas that are vulnerable to the impacts of sea level rise, provide better planning tools for decision-makers in our county, and inform a community conversation on the topic of climate adaptation.

Preliminary findings show that low lying county roads, forage fish spawning beaches with bulkheads or roads behind them, and structures located on erosive feeder (sediment supply) bluffs in areas with exposed wave environments are among the most vulnerable shoreline features in the county. With this knowledge, property owners and land managers can make informed decisions about where to locate public infrastructure and private development – reducing the public and private costs of sea level rise.



*The sea level rise technical team.*

# Education Program Updates

## Sound Shoreline Science Forums



*Stephanie Buffum Field addresses the audience at a Shoreline Science Forum.*

FRIENDS partnered with Futurewise in the late spring to offer a series of forums about the importance of healthy shorelines. Ninety-five participants learned from leading scientists and experts about coastal processes, seagrasses, impacts of bulkheads and hard armoring, tribal cultural aspects of shorelines, the importance of trees and shrubs in the shorelines, the economic values of shorelines and legal and policy considerations for Shoreline Master Program (SMP) updates.

## Workshop for Local Contractors

FRIENDS hosted a training in the spring to help professional land developers, contractors, and excavators improve the efficiency and effectiveness of their land development practices in San Juan County (with funding support from the Puget Sound Partnership). Attendees learned about new regulations, how to navigate the permit process and best practices to help save time and money, while protecting resources, from experts from the Washington Department of Ecology, the San Juan Islands Conservation District, FRIENDS, San Juan County and Elliott Menashe of Greenbelt Consulting.

## Low Impact Development Training this Fall – stay tuned!

FRIENDS is excited to bring a Low Impact Development (LID) training to San Juan County in November 2013. The training will inform participants about LID techniques that work in San Juan County. Experts will introduce participants to such topics as bioretention, permeable paving, green roofs, low impact foundations, rain water collection, and how to properly design, construct and maintain LID facilities.

## Local student works to ban plastic shopping bags in San Juan County

Isaiah, an 11th grader at Friday Harbor High School, worked on promoting a single-use plastic shopping bag ban in San Juan County for his community project this past spring. Isaiah educated his peers about the problems plastic can create in the environment, drafted a plastic bag ban petition (and got 100 signatures) and submitted the petition along with a letter to the County Council. Katie Fleming, FRIENDS' Community Engagement Director, mentored Isaiah on his project. FRIENDS will continue Isaiah's great work. Bellingham and Seattle have instituted single-use plastic bag bans and we would like to see our community added to the list. Stay tuned for more to come on local efforts to promote a San Juan County-wide plastic shopping bag ban!



*Katie Fleming, Beth Terry and Isaiah at the Grange in Friday Harbor after Beth's April presentation.*

# FRIENDS *News Updates*

## **New Board Member: 5th Generation Islander**

Ken Burtness has a long history in the San Juan Islands – his family moved to Shaw in 1890 and he has lived on Lopez for 35 years. He was born and raised in Anacortes and attended the University of Washington. Ken started working for the Washington State Ferries as a summer job during college. He



made it a permanent job as a captain until retirement in 2008. His biggest interest these days is gardening. Because of his long family history in the islands, he feels very connected to this place and the people who live here. Ken views his board membership as a way to contribute to keeping the islands a special place. With his deep island roots and in-depth knowledge of our local waterways, it is an honor to have Ken on the FRIENDS board.

## **Policy & Legal Interns Elena Small**



Elena is pursuing a Masters of Public Administration from the University of Washington. Elena grew up exploring the San Juans Islands on foot and by sea, and is excited to help contribute to FRIENDS' important work. As part of her internship, Elena conducted interviews with nearly 30 coastal scientists, managers and permitting staff on the topic of sea level rise, as part of FRIENDS' work to improve the effectiveness of shoreline protection efforts.

## **Samuel J. Hopewell**



Sam hails from the Midwest, where he attends the University of Iowa College of Law. His interests include road trips, running, chess, soccer, Ernest Hemingway, formal logic, behavioral economics, hiking, fishing, camping, Ralph Waldo Emerson, hardboiled/noir fiction, Lee Morgan, and The Great Gatsby. Samuel is excited to spend his summer gaining environmental law experience and exploring Washington State.

## **Breanne Vander Naald**



Breanne received a B.S. from the University of Michigan in the Program in the Environment. Since then, she has worked for the Environmental Protection Agency in Washington, D.C. and the U.S. Fish and Wildlife Service in Bismarck, North Dakota. Breanne recently completed her first year at Vermont Law School and is looking forward to spending her summer with FRIENDS and engaging her passion for conservation.



# Board Member Spotlight

## **Charlie Carver:** Cultivating and Preserving a Landscape

Charlie Carver is a man with a passion for historic iris. It shows in his enthusiastic voice and instant grasp of the different characteristics of each plant. Charlie has been involved with his passion for 25 years and currently grows over 1,200 varieties in a wide range of classes, with more than 75 percent of them being historic iris. Formal Latin names for the different species roll off his tongue with ease and he knows the people from around the world who breed each different iris.

If you get the chance to see his iris garden at the right time of year, you will be struck by the wash of colors and the precise fencing and plot rows. Beyond the borders of his iris garden lies a forested wetland. It is here that Charlie will share with you his other passion, his efforts to enhance his property's wetlands, with equal verve and vigor.

He admits that original development plans for his property included making use of the "wet area" and open land already cleared by a previous owner. After researching wetlands, he was convinced that his "wet area" was actually a true wetland which was later confirmed by a wetlands

specialist. Charlie has grown to appreciate wetlands for their significant place in the environmental landscape of Orcas Island. He has chosen to recover and preserve the wetland on his property, instead of cultivating it.

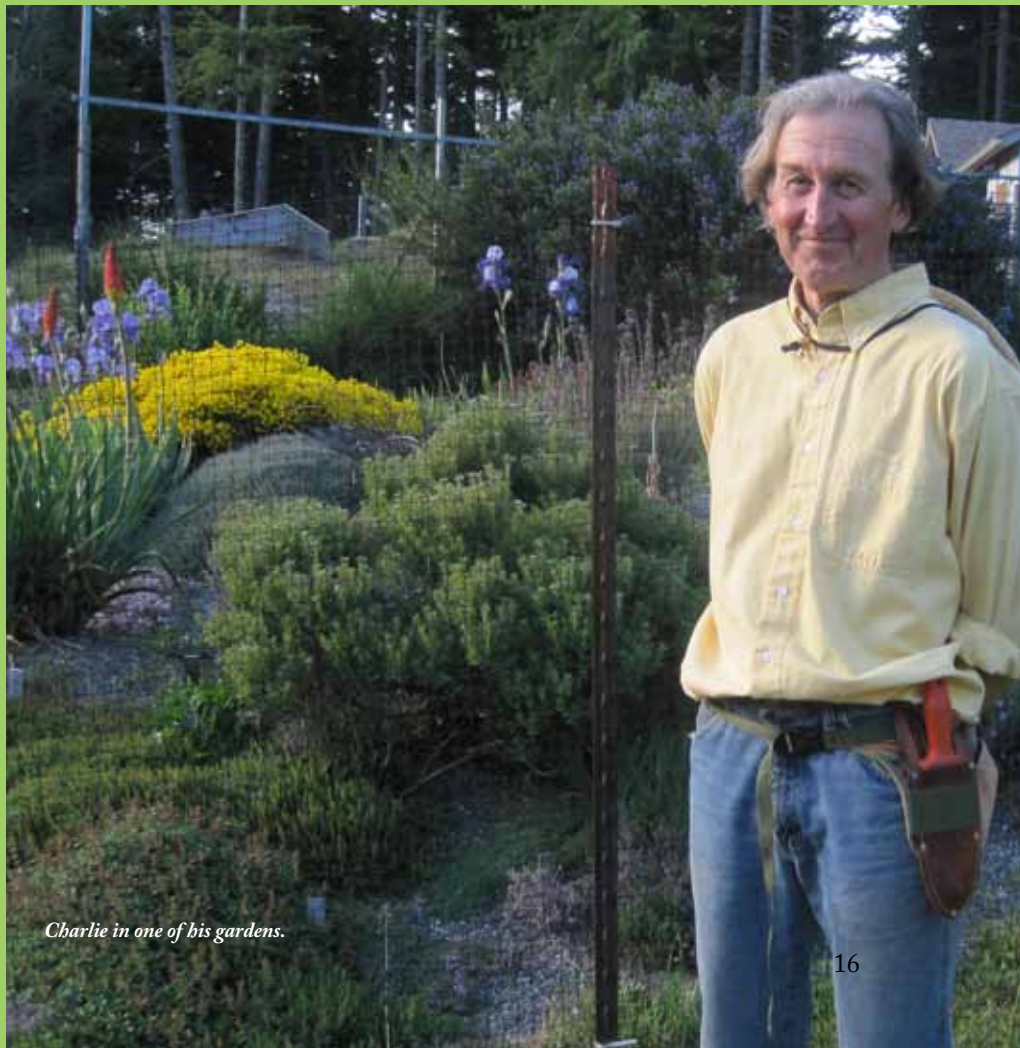
Charlie has created a buffer that ranges in width from 50-140 feet from his gardens to the class three wetland. It is the "right thing to do", as far as Charlie is concerned, regardless of governing regulations that might allow less of one. Charlie's guiding principle is "How do I fit myself into the landscape and use this land in a manner that improves upon the common good for the benefit of future generations."



*Pippi Longstockings Iris. Photo by Babs Parrott.*



*Mikey Likes It Irises. Photo by Babs Parrott.*



*Charlie in one of his gardens.*

# Plastics...

## Reduce, Reuse, Recycle

Look around your supermarket, in your kitchen, and in your bathroom. Look at your children's toys and at their food containers. Plastics are everywhere. We value plastics for their incredible versatility, but we usually do not think of the cost that comes with everyday plastics.

Author and activist Beth Terry has made us think again. In 2007, Beth saw an image of the remains of a baby albatross that had died because its parents mistook plastic trash for food. She decided to try to avoid buying plastic. Beth's book, *Plastic Free: How I Kicked the Plastic Habit and How You Can Too*, is a terrific resource that alerts us to the negative impacts of plastics and shows us how we can reduce our use of plastics, step by step. Libraries and bookshops on Lopez, Orcas, and San Juan Island have copies of Beth's book.

"Plastics are so common in our lives that we may not think much about them until we learn about the giant garbage patches of plastic trash in our oceans, or about how plastic trash can harm marine animals, or how plastics can affect our own health. Plastics are useful, but they have come to dominate our world. Instead of being used where they are essential, plastics are used everywhere. Most things made of plastic are designed to be used once and then thrown away. This discarded plastic ends up in landfills, blows across our landscapes, or ends up in our lakes, rivers, and oceans," said Beth.

Think the problem doesn't reach local waters? The next time you visit a south facing beach in the San Juans, such as Eastsound's waterfront park, take a look at the upper beach, along the log line, where you will find a multitude of small plastic objects – some of the highest concentrations found anywhere in the region.

Beth inspired islanders at her presentations on San Juan, Orcas, and Lopez Islands. FRIENDS would like to

thank Blossom Grocery, Darvill's Bookstore, Emmanuel Episcopal Parish, Griffin Bay Bookstore, and Orcas Friends of the Library for their support. Many thanks to Kim Secunda for sharing her dream to bring Beth to our islands. Kim, Janet Alderton, FRIENDS' board vice president, and many other volunteers made her visit a success.



Beth Terry. Photo by Stephen Loewinsohn.

# Get Your Feet on the Beach

*with* **FRIENDS**  
*this Summer!*

Join us for fun, interpretive shoreline beach walks and hands-on activities. Learn about geology, forage fish, shoreline vegetation and nearshore fish species. Activities will be led by Jim Johannessen, Principal Coastal Geologist with Coastal Geologic Services, Tina Whitman, FRIENDS' Science Director and Mike Kaill, Ph.d., Marine Biologist. All ages welcome to this family friendly event!

Orcas Island, Crescent Beach  
Wed. Aug. 7, 9:30 – 11:30 am

Lopez Island, Odlin County Park  
Wed. Aug. 7, 1:30 – 3:15 pm

San Juan Island, South Beach  
Thurs. Aug. 8, 10 am – 12 pm



# In Search of Art

FRIENDS is raising awareness about our shorelines through an art exhibition and auction. We need your help! If you are an artist or an art collector, please consider contributing art pieces that depict the Salish Sea (painting, photographs, carvings, jewelry or sculptures). Deadline for submitting items is September 30. Proceeds from this auction will go to FRIENDS' Safe Shipping in the Salish Sea program. Call 378-2319 for more information.



Artwork by Elizabeth and Paul Chadwick.

## Upcoming Events

### Inter-tribal Canoe Journey Community Potlucks

Lopez, Odlin County Park, Thurs. July 18, 6 p.m.

San Juan, English Camp, Fri. July 19, 6 p.m.

### Feet on the Beach Field Trips

Orcas, Crescent Beach, Wed. Aug 7, 9:30 - 11:30 a.m.

Lopez, Odlin County Park, Wed. Aug. 7, 1:30 - 3:15 p.m.

San Juan, South Beach, Thurs. Aug. 8, 10 am - 12 p.m.

### FRIENDS Annual Meeting

Join us for lunch, discussions about a green energy future and an art auction to help fund our safe shipping program.

October 20, Lopez Center, 11:30 a.m. - 2:00 p.m.  
Call 360-378-2319 to RSVP



P.O. Box 1344, Friday Harbor, WA 98250  
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