

# FRIENDS

of the San Juans



Vessel Impacts from Coal & Tar Sands Oil Shipping

Shoreline Master Program Informational Pull-Out

Tsunamis Debris Reaches Local Shores

Forage Fish and the Marine Food Web

Protecting Critical Areas?



Summer 2012

# Executive Director's Report



With a growing list of human pressures impacting the islands, the stakes have never been higher for preserving the San Juans.

FRIENDS is working towards clean water and healthy shorelines for fish and wildlife, safe shipping and oil spill prevention, and a livable community. To assist us with our mission, FRIENDS is proud to welcome our new Community Engagement Director, Katie Fleming and new board members, Dixie Budke of Lopez and Charlie Carver of Orcas.

FRIENDS has a busy year on the horizon providing shoreline property owners with free technical assistance for managing their beaches and bluffs; developing neighborhood shoreline conservation easement tools; conducting research on sea level rise, cumulative impacts and forage fish; designing shoreline restoration projects; monitoring tsunami debris; commenting on the proposed coal terminal in Whatcom County; and participating in the Critical Areas Ordinance and Shoreline Master Program updates. Phew!

FRIENDS will continue to provide the community with information about these and other emerging issues. There's never been a better time to get involved or to make a special donation to protect and preserve the livability of the islands for future generations.

Thank you,

## FRIENDS' President Testifies in Support of Forage Fish Protection

In June, FRIENDS' President, George Lawson, testified before the Pacific Fisheries Management Council in San Mateo, CA, to support limitations on new commercial fisheries to harvest forage fish. Forage fish account for over one-third of wild marine fish caught globally, and 90% percent of that catch is processed into feed for fish farms, poultry, and livestock, as well as nutritional supplements for people. Combine these statistics with data suggesting human fish harvest has already depleted around 90% of all ocean fish stocks and you will see the need to care about these small "bait" fish. As a result of broad public support and testimony, the Council initiated steps toward pursuing forage fish protections in the coming year.

### FRIENDS of the San Juans

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

P.O. Box 1344, Friday Harbor, WA 98250  
360-378-2319 [www.sanjuans.org](http://www.sanjuans.org)

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# Japanese Tsunami Debris on our Shorelines

As debris from the March 11, 2011, Tōhoku tsunami began arriving on the US west coast, including San Juan County, FRIENDS began receiving calls for information. Here are some frequently asked questions and answers.

## How much debris will arrive in the islands and when?

National Oceanic and Atmospheric Administration (NOAA) models forecast that the first major influx of debris will arrive in Washington in October 2012. The models do not predict a massive surge of debris on San Juan County beaches, but beginning this past spring islanders have been finding smaller items believed to be tsunami debris, such as fishing gear and floats.

## What do I do if I find suspected tsunami debris?

The State is asking finders of small debris to help clean the beaches by throwing them away. If you find a large or potentially hazardous item please report it on the new marine debris line, 1-855-WACOAST (855-922-6278). If an item could be identified by an owner in Japan, finders can email a photo to [disasterdebris@noaa.gov](mailto:disasterdebris@noaa.gov). You can also post photos of debris you find in San Juan County at: [www.facebook.com/SanJuanIslandsJapaneseTsunamiDebrisCleanUp](http://www.facebook.com/SanJuanIslandsJapaneseTsunamiDebrisCleanUp)

If you don't know what an item is, don't touch it. Use common sense and follow general safety guidelines. If an item is hazardous, like barrels or canisters of fuels or chemicals, you can contact Dept. of Ecology HAZMAT at 800-OILS-911. If you find human remains (highly unlikely) call 911. For large floating debris, call the U.S. Coast Guard at 1-800-424-8802, or 510-437-3701.

## Who will pay for the clean-up?

At this point, waste disposal will occur primarily at the local level. Transfer stations will continue to take your marine/beach debris free of charge. Governor Gregoire recently released emergency funding for coastal cleanup efforts. Federal funding strategies are being developed.

## How do I know if the debris is hazardous?

NOAA notes that the risk of radiation from the debris is highly unlikely, but the WA Dept. of Health plans to conduct radiation spot checks on debris.

Household, commercial and industrial hazardous material and medical waste are a greater concern. FRIENDS has created laminated contact information cards with Japanese warning characters; contact us at 378-2319 for one.

## Will invasive species be on the debris?

Tsunami debris is a likely vector for potentially invasive species, including wakame (*Undaria pinnatifida*), a kelp species that is highly invasive and disruptive to native kelp ecosystems. The 150-ton dock that beached in Newport, Oregon, was colonized by wakame. If you believe there might be aquatic invasive species on tsunami debris, please use the state Invasive Species Reporting Form at [www.wdfw.wa.gov/ais/reporting](http://www.wdfw.wa.gov/ais/reporting).

## Where can I learn more?

[www.wdfw.wa.gov/tsunami](http://www.wdfw.wa.gov/tsunami)  
[www.marinedebris.noaa.gov/tsunamidebris](http://www.marinedebris.noaa.gov/tsunamidebris)  
[www.disasterdebris.wordpress.com](http://www.disasterdebris.wordpress.com)  
[www.beachcombersalert.blogspot.com](http://www.beachcombersalert.blogspot.com)  
[www.sanjuans.org/beachcleanups.htm](http://www.sanjuans.org/beachcleanups.htm)

To volunteer for the FRIENDS Tsunami Debris Project, call FRIENDS at 378-2319.

*This bottle and numerous other items with Japanese writing were found on a San Juan Island beach.*



# Will Coal and Tar Sands Ships Threaten the San Juans?

Strong appetites for coal in Asia and tar sands oil throughout the world have led resource extraction corporations to seek numerous new outlets on the west coast to ship their products overseas. Nine new coal and oil export terminals have been proposed for shorelines in Washington, Oregon and British Columbia. At peak production, over 1,400 new bulk carrier ships, some the size of the Empire State building, would transit in and out of these terminals, many making a round trip through the Salish Sea. The likelihood of a catastrophic oil spill would increase dramatically with the addition of these enormous bulk carrier ships. One accident could decimate our environment and our economy.

## Coal

Coal companies plan to strip mine Powder River Basin coal in Montana and Wyoming and transport it by train to Washington and Oregon, where it would be loaded onto massive cargo

ships bound for Asia. The nation's two largest coal companies are trying to develop massive coal export terminals at Longview and Cherry Point, Washington. Other proposals would locate terminals in Grays Harbor, Washington, and Boardman, Coos Bay, and St. Helens, Oregon. Collectively, these ports could ship at least 100 million tons of coal per year out of the Pacific Northwest.

The Cherry Point proposal, called the Gateway Pacific Terminal (GPT),

would be capable alone of exporting 48 million tons of coal each year, filling approximately 487 cargo ships. These ships would each need to make a round trip around our islands, adding 1,000 vessel trips through our waters. The massive Panamax and Capesize ships are twice the size of the oil tankers currently calling on Washington ports and have the worst safety records of any commercial marine vessels. These bulk carriers are difficult to maneuver, lack tug escort, and would travel the increasingly congested waterways of Rosario and Haro Straits.

*“Vessel traffic is crazy out in Haro Strait now. I can't imagine what an increase in shipping traffic would look like, let alone sound like.”*

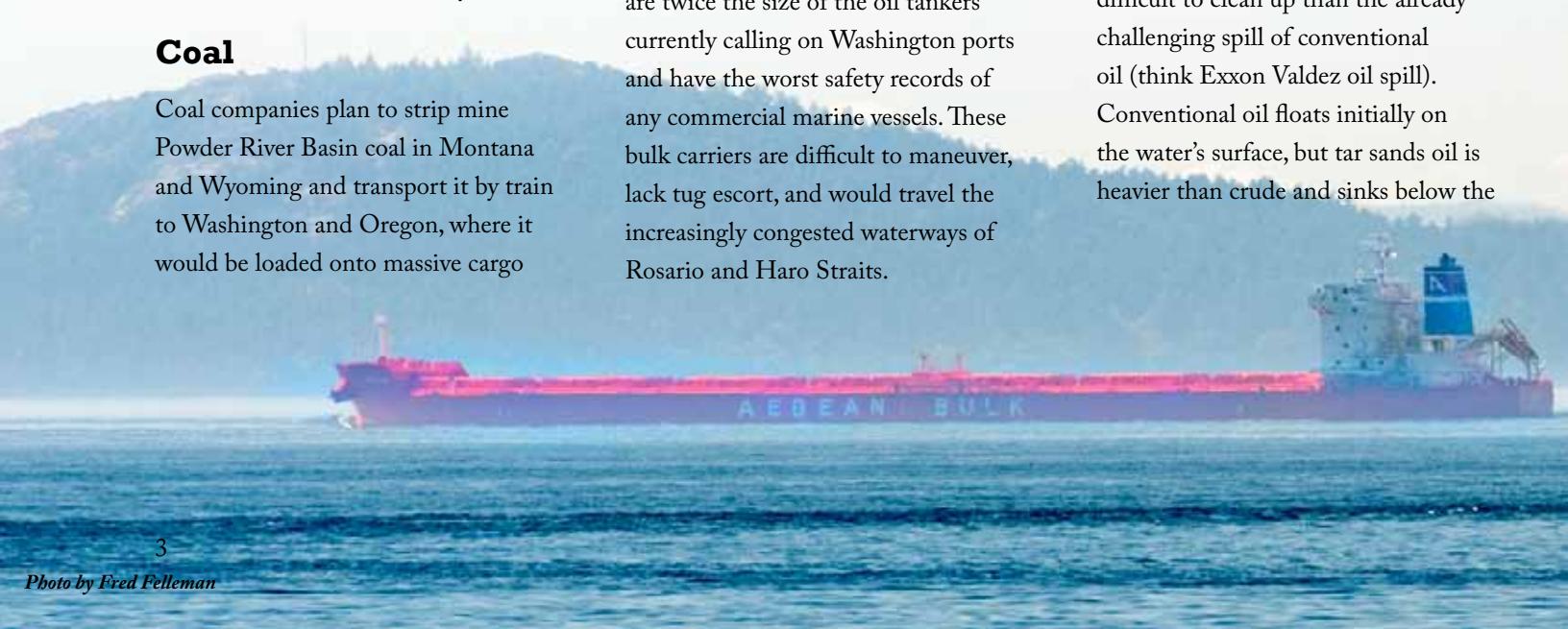
*Kari Koski  
(Former Director of Soundwatch)*

## Tar Sands Oil

On July 25, 2010, 1.2 million gallons of tar sands oil spewed out of an Enbridge oil pipeline, contaminating Michigan's Kalamazoo River with toxic pollutants, killing wildlife, and causing unprecedented and irreparable damage. The clean-up is still ongoing, with a price tag nearing \$700 million. Tar sands oil is still found throughout hundreds of acres of the watershed. We don't want to see this happen in the Salish Sea.

Two years later, Kinder Morgan has proposed two tar sands export facilities in British Columbia - Burrard Inlet and Burnaby, both near Vancouver. Another proposal is being considered to expand tar sands exports even closer to home at March Point in Anacortes. Up to 225 new oil tankers could pass through the Salish Sea to refineries in our area annually.

A tar-sands oil spill is much more difficult to clean up than the already challenging spill of conventional oil (think Exxon Valdez oil spill). Conventional oil floats initially on the water's surface, but tar sands oil is heavier than crude and sinks below the



surface, making oil cleanup equipment like booms and skimmers useless.

## Efforts to Reduce Impacts

To coordinate efforts to minimize the risks from the proposed increases in tanker traffic, FRIENDS, and over 30 local, State, Federal, Canadian organizations and Tribal Nations have formed the Safe Shipping Alliance of the Salish Sea. This coalition is working together to research potential impacts, review and participate in permit processes including federal environmental impact statements, and inform and engage the public.

In addition to the increased threat of an oil spill from such large numbers of vessels carrying tar sands oil or coal, FRIENDS is concerned about the safety of recreational, commercial, and tribal boaters who will have to navigate around these large bulk carriers; direct impacts of increased vessel traffic on orca, fish, birds and other wildlife; the introduction of invasive species in ballast water; and increases in ocean acidification from CO2 emissions.

FRIENDS, along with many citizens, organizations, and decision-makers at the local, state, federal and tribal levels, has requested that permitting agencies conduct a Programmatic Environmental Impact Statement to consider all of the health, safety, environmental, and economic impacts that these projects would cause, from the point of extraction to the

coal burning overseas. We have also requested that scoping meetings be held in the islands so that our communities can share their concerns directly.

FRIENDS will continue to work with our partners to review application materials and new information as it becomes available.

## 5 Things You Can Do

1) Attend an upcoming talk on Coal and Tar Sands Ships in our Waters:

*Sept. 8, San Juan Fairgrounds, 1-2 pm*

*Sept. 9, Lopez Center, 5-6:30 pm*

*Sept. 10, Orcas Episcopal Church, 5-6:30 pm*

2) Place a Power Past Coal poster at work, at home, or in your car.

3) Comment on the Gateway Pacific Terminal Environmental Impact Statement. Request an evaluation of both rail and marine impacts to fish and wildlife, recreation, human health and our local economy.

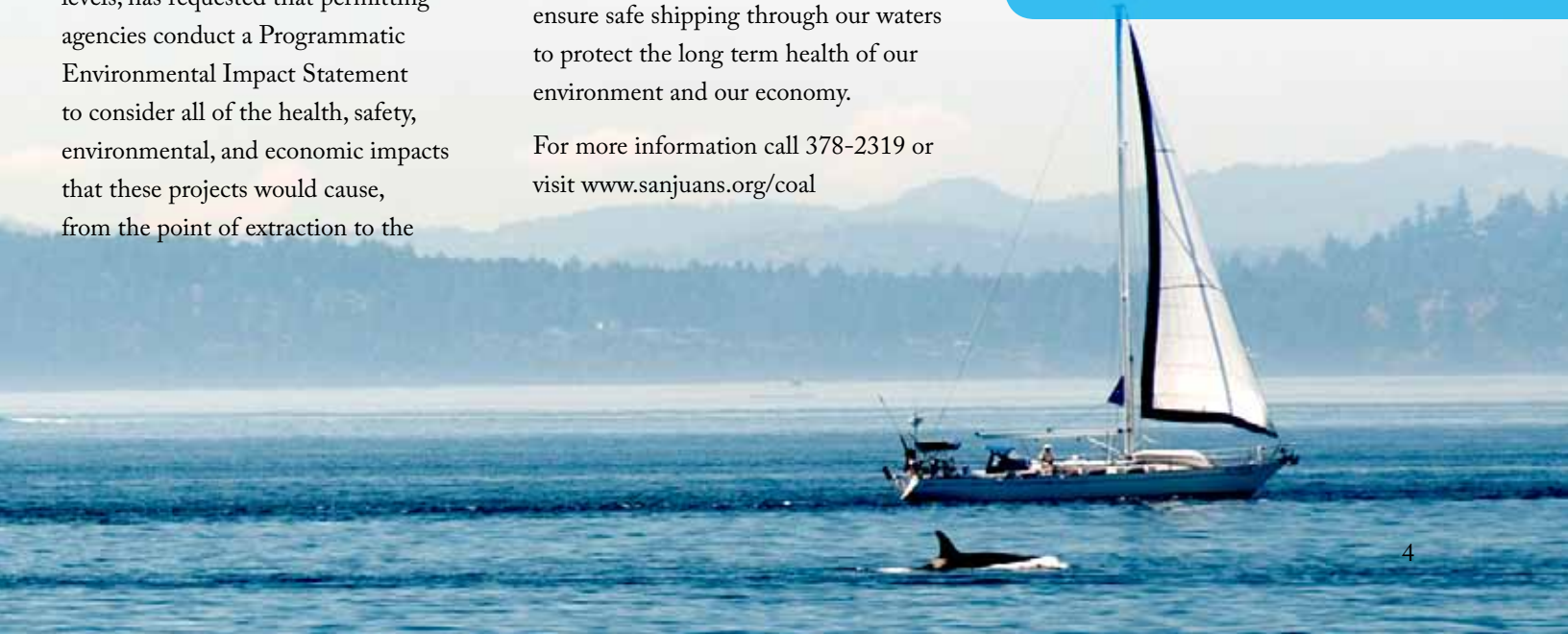
4) Request a Programmatic Environmental Impact Statement for all proposed coal export facilities in Washington and Oregon.

5) Ask the San Juan County Council to ensure safe shipping through our waters to protect the long term health of our environment and our economy.

For more information call 378-2319 or visit [www.sanjuans.org/coal](http://www.sanjuans.org/coal)

## FRIENDS Asks Navy to Avoid Harm to Whales

This winter, FRIENDS joined with a coalition of conservation and Native American groups to challenge the National Marine Fisheries Service's (NMFS) failure to protect thousands of whales, dolphins, porpoises, seals, and sea lions from U.S. Navy warfare training exercises along the Pacific Coast. Even though the Navy's Northwest Training Range Complex is the size of California, NMFS failed to place any time or location limits on the Navy's proposed sonar use, surface gunnery and missile exercises, air-to-surface bombing, sink exercises, and extensive testing of several new weapons systems. The lawsuit, filed this winter, does not seek to halt the Navy's exercises; instead it requests that NMFS direct the Navy to stay out of critical areas, like the Olympic Coast National Marine Sanctuary, at certain times of the year when species like endangered orcas are likely to be there. Visit our website for updates on this important litigation to protect our whales.



# Forage Fish and Our Marine Food Web

## What are forage fish?

Forage fish are small to medium-sized schooling fish that are eaten by larger fish, seabirds, and marine mammals. They play an essential role in marine food webs by transferring energy from plankton to larger species. In San Juan County, our most important forage fish species are Pacific herring, surf smelt and Pacific sand lance.

## Why care about forage fish?

Forage fish are staples in the diets of Chinook and Coho salmon, lingcod, Marbled Murrelets, Rhinoceros Auklets and Minke whales. If you care about having salmon or cod to eat, or birds and whales to watch, then you should care about forage fish.

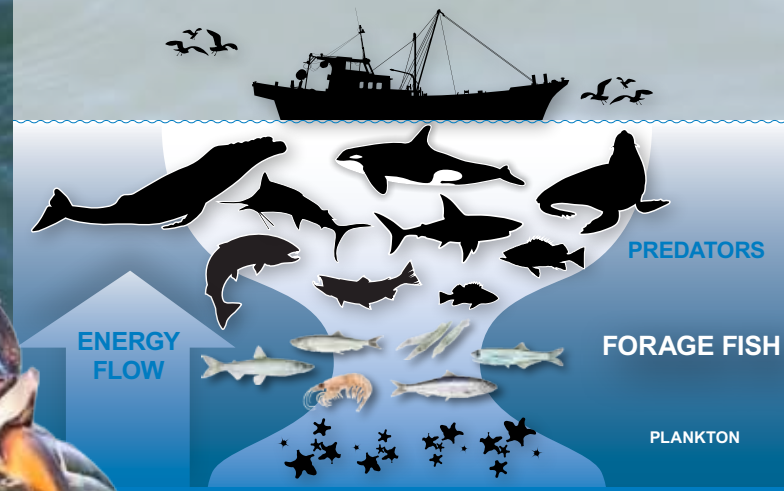
## What is the problem?

In San Juan County, forage fish species require beaches and shallow water eelgrass habitats to spawn and incubate their eggs. This makes forage fish vulnerable to the effects of human modifications along our shorelines, such as bulkheads, docks, roads and vegetation removal along our shore.

## How can we protect forage fish?

For over 10 years, FRIENDS has led local efforts to survey, map, protect and restore forage fish spawning beaches in the county. There are currently eleven miles of documented surf smelt and sand lance spawning habitat on San Juan County beaches. Just a small number of bays, including Eastsound, Blind Bay, Mud Bay and Hunter Bay, currently support herring spawning offshore. Local critical areas and shoreline legislative updates provide an excellent opportunity to help preserve the health of our fish populations, and our marine food web.

As islanders we live in the middle of a marine ecosystem. The health of each layer of the food web is impacted by the level below it. When we go to the beach, we are lucky enough to witness and appreciate the delicate balance that supports everything from forage fish, to salmon, to orca whales, all the way up to us!



Graphic courtesy of Pew Environment Group

# Shoreline Master Program

## Shoreline Master Program Update...

A lot has changed since 1998. Justin Bieber has replaced the Spice Girls. Windows 98 has been updated four times. And the scientific knowledge that informed San Juan County's Shoreline Master Program (SMP) update in 1998 has multiplied many times. For example, we learned enough about our local orca whales and their preferred food, Chinook salmon, to list them under the Endangered Species Act. Just as we update our computer operating systems, it is time for San Juan County to update its SMP with all of the local information we have gained about our more than 400 miles of marine shorelines and the species that depend on them.

### What is the SMP?

In 1972, voters approved the Washington State Shoreline Management Act (Act) to help prevent harm to the state's fragile resources from uncoordinated and piecemeal development. The Act creates a partnership between local governments and the Dept. of Ecology (Ecology), and directs over 260 towns, cities and counties to carry out the Act's policies through local SMPs.

SMPs must:

- protect the natural character of shorelines
- promote public access and enjoyment of public shores
- plan for and foster reasonable and appropriate uses

### How do SMPs protect shorelines?

In 2003, Ecology revised the state guidelines that direct how local governments create and update SMPs. The guidelines require local governments to plan for future development and uses, achieve no-net-loss of ecological functions, and plan for restoration of impaired shoreline ecological functions. Local governments like San Juan County must also use accurate scientific and technical information to inventory and characterize existing conditions and then use that knowledge to develop the goals, policies and regulations of the SMP.

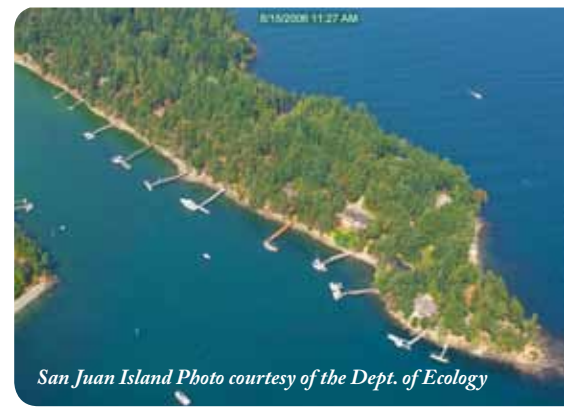
To satisfy the Act's ecological protection element, local governments must examine and protect natural resources at both the ecosystem and local scale. For example, the SMP must be based on an understanding of both large-scale functions like drift cells (which include eroding bluffs and beaches, where sand and gravel move and are deposited) and more local habitats like eelgrass beds and forage fish spawning beaches. SMPs must ensure that, to the greatest extent feasible, they protect existing ecosystems and avoid new impacts to shoreline habitats. In addition, local governments must perform a cumulative impacts analysis that identifies the potential harm from all development authorized by the SMP and that shows a way to achieve no-net-loss.



*Bulkheads, along roads and in front of homes, can bury beach habitat, and over time result in the loss of beaches for forage fish, clams and people to enjoy.*



*Forage fish are critical to the marine food web. Loss of forage fish can lead to less salmon, seabirds and whales, decreasing wildlife viewing and fishing opportunities for all of us.*



*Docks impact the marine environment by blocking the sunlight that eelgrass requires to grow. Docks also force small fish into deeper waters, where predation risks are higher.*

*San Juan Island Photo courtesy of the Dept. of Ecology*

# Shoreline Master Program

## Why is the County Updating Its SMP?

The Shoreline Management Act (Act) requires local governments to update their SMPs at regular intervals to make sure that they consider changed circumstances and rely upon the most current scientific information available. San Juan County is working to complete its first meaningful update in 15 years; it is expected to be ready for Ecology review by June 2013.

Since 1998, we have learned a lot about our shorelines. In that time, FRIENDS has collaborated with public and private partners to improve our understanding of local shorelines.

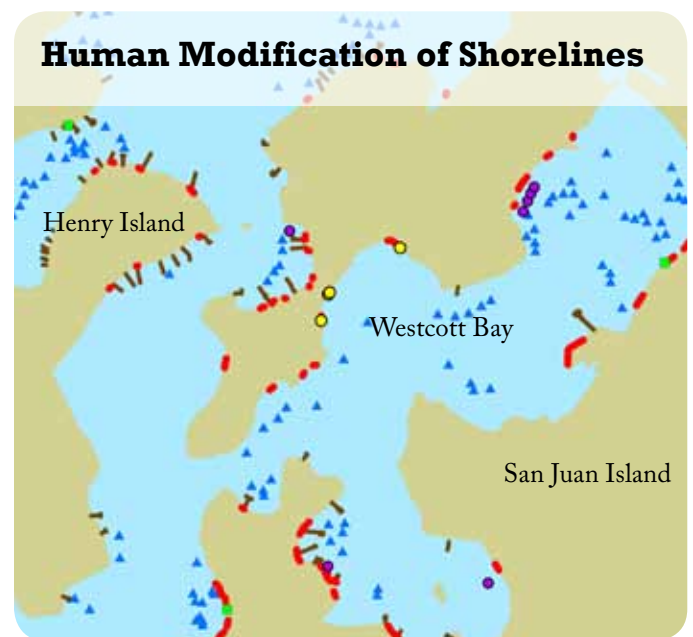
Maps of NW San Juan Island (below) provide an example of local data gathered since the County's last SMP update:



- highest priority salmon recovery shoretype
- - - high priority salmon recovery shoretype
- - - moderate priority salmon recovery shoretype
- surf smelt spawning habitat
- eelgrass outerline (deep water edge of bed)
- bull kelp
- Pacific herring spawning grounds

San Juan County's shorelines are a critical part of the Salish Sea's marine ecosystem. Research in the past 12 years has documented: the outside edge of all eelgrass beds (140 linear miles in SJC) and bull kelp (180 linear miles in SJC); known surf smelt, sand lance, and herring spawning areas; and that juvenile salmon use ALL of SJC's shorelines!

*Data Sources: Juvenile Salmon Recovery Priorities, 2012. Skagit Systems Research Cooperative and NOAA Fisheries. Outerline of Eelgrass, 2004. FRIENDS, WDNR and the UW; Pacific Herring Spawning Grounds, 2002. WDFW. Forage Fish Spawning Beaches, 2004. FRIENDS and WDFW; Bull Kelp, 2006. FRIENDS, WDNR and UW.*



- pilings
- groin
- bulkhead
- boat ramp
- ▲ buoy
- dock

Development is concentrated on San Juan County's sand and gravel shores. Over 18 miles of local shores are armored with bulkheads, and nearly 500 docks and 2,000 buoys exist just offshore. Information about current shoreline development and the effects on local natural resources help the County plan for future shoreline development and uses.

*Data Source: Shoreline Modification Inventory, 2009. FRIENDS of the San Juans.*



# Shoreline Master Program

**“In the next century, the majority of America’s publicly owned tidal shorelines could be replaced by a wall, not because anyone decided that this should happen but because no one decided that it should not.”**

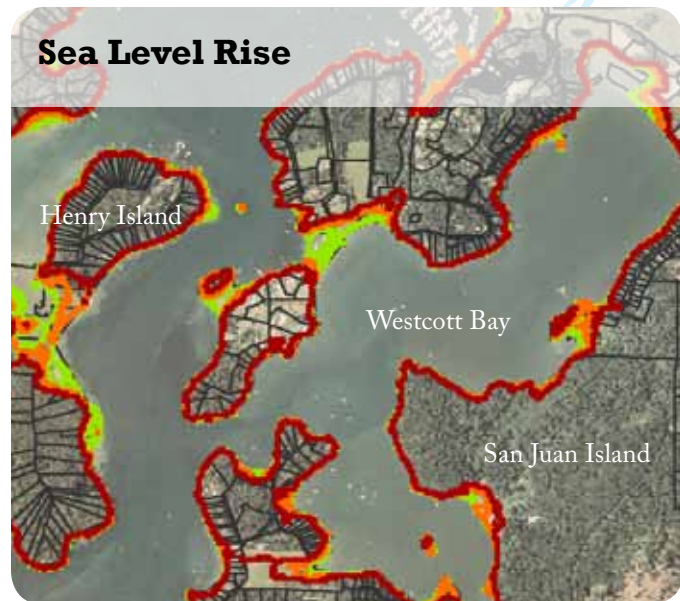
*Titus, JG 1998*



- artificial
- rocky
- pocket beach
- lagoon
- estuary
- barrier beach
- transport zone
- feeder bluffs

The shores of San Juan County include many different shoretypes, such as spits, barrier beaches, feeder bluffs, rocky shores, estuaries and lagoons, and pocket beaches. Different shoretypes are formed and maintained by different geologic and physical conditions and processes. They support different habitats and species and differ in their vulnerability to natural and human changes. For example, feeder bluffs are the source of sand that replenishes beaches and spits. Pocket beaches, especially those along the exterior portions of our county, are the most likely places to find wild juvenile Chinook salmon.

*Data Source: Geomorphic Shoreform Mapping for San Juan County, 2010. Coastal Geologic Services.*



- Mean High High Water +9.1 ft
- Mean High High Water +5 ft
- Mean High High Water +2 ft
- parcels

The long-term protection of shoreline property - for people and fish - requires us to know which places are most vulnerable to the impacts of increased storminess and sea level rise. Mapping a variety of potential future scenarios helps land use and natural resource managers make sound decisions when planning for future infrastructure, property and habitat. As part of a larger strategic planning process to inform local salmon recovery efforts and ensure efficient public investment in restoration projects, FRIENDS partnered with Coastal Geologic Services (CGS) to develop countywide inundation maps based on a variety of sea level rise projections.

*Data Source: San Juan County Sea Level Rise Inundation Maps, 2011. CGS*

## What is a shoreline?

The Washington Shoreline Management Act applies to major water bodies and their adjacent 28,204 miles of shorelands. They include:

- Marine waters
- Streams over 20 cubic feet per second mean annual flow
- Lakes, ponds, and reservoirs 20 acres and greater
- Upland areas called shorelands that extend 200 feet landward from the Ordinary High Water Mark
- Associated wetlands

*Source: Ecology SMP Handbook*

# Shoreline Master Program

## What is the County's SMP process?

1. Get people involved, write a public participation plan
2. Take stock of existing shoreline conditions and characterize ecological processes and functions
3. Develop goals and a community vision of the future
4. Identify shoreline use zones called "environment designations" and locations for future development and uses
5. Identify any permits or other requirements for development and uses
6. Identify opportunities and plan for public access to public shores and waters
7. Develop a restoration plan
8. Obtain County Council approval
9. Obtain Ecology approval

Find the County's SMP schedule at [www.co.san-juan.wa.us/CDP/docs/SMPContaktOptions/PrintGantt.pdf](http://www.co.san-juan.wa.us/CDP/docs/SMPContaktOptions/PrintGantt.pdf)

## Who should get involved?

You! While the members of the Planning Commission and County Council will craft the SMP, meaningful opportunities for your input will be provided. This means that if you care about the shorelines of this unique and beautiful place, you need to make your voice heard. While not everyone in San Juan County lives right on the water, all of our actions affect our shorelines, and we all benefit from strong protections for our shared resources.

To get involved in the process, or if you simply want more information, you can visit Ecology's, the County's and FRIEND's SMP websites.

## Significant Shorelines

The Act designates the waters below extreme low tide, including those surrounding the San Juans, as Shorelines of Statewide Significance. In such shorelines, preference is given, in the following order, to uses that:

- (1) recognize and protect the statewide interest over local interest
- (2) preserve the natural character of the shoreline
- (3) result in long term over short term benefit
- (4) protect the resources and ecology of the shoreline
- (5) increase public access to publicly-owned areas of the shoreline
- (6) increase recreational opportunities for the public in the shoreline
- (7) provide for other appropriate or necessary use

*This SMP informational guide has been funded by the U.S. Environmental Protection Agency (EPA), through the Puget Sound Partnership and the WA Dept. of Fish & Wildlife. The contents of this document do not necessarily reflect the views and policies of the EPA.*



*Stormwater infrastructure and runoff causes beach erosion and carries pollutants including sediments, toxins, and nutrients to the marine environment.*



*Removal of shoreline vegetation reduces shade, fish and wildlife habitat, and the filtering of runoff. More shoreline habitat is lost from the cumulative impacts of many smaller projects than from major construction projects.*



*The closer a building is to the shoreline, the sooner a bulkhead may be desired, leading to the loss of beach-spawning habitat for forage fish.*

# Protecting Critical Areas?

If you have been tracking the news since 2005, then you are aware that San Juan County has been revising its outdated Critical Areas Ordinance (CAO). After several delays, the County is approaching the finish line, and is scheduled to complete the ordinance this fall. FRIENDS has engaged in the public process at every opportunity, advocating for an ordinance that meets the Growth Management Act (GMA) requirement to achieve protection of critical areas.

Critical areas (critical aquifer recharge areas, frequently flooded areas, geologically hazardous areas, fish and wildlife habitat conservation areas, and wetlands) play a vital role for their natural inhabitants and for human health and safety.

## Where are we now?

The County Council has already established draft final regulations for critical aquifer recharge areas, geologically hazardous areas, and general provisions. This summer, the County Council will begin to review the final two sections of the CAO, wetlands and fish and wildlife habitat conservation areas. They will also conduct a final review to ensure that all of the regulations are consistent with each other.

## Will the CAO protect critical areas?

With the exception of a few significant improvements (e.g., parcels smaller than 1 acre would no longer be exempt from wetland protections), the CAO needs additional work. Here are four provisions in the current draft that are inconsistent with the Best Available Science (BAS) that San Juan County compiled:

**1. The number of exemptions would expand by almost 50%.** For example, in wetlands, exemptions would increase from approximately 19 categories of primarily existing activities allowed in wetlands

and/or their buffers to approximately 28 exemptions, including new agriculture, tree removal, and wells.

**2. Insufficient wildlife habitat:** Notwithstanding that the BAS identifies appropriate habitat buffers for wetland critters in the 98 to 328-foot range, the proposed wetlands habitat buffers would range from just 30 feet to 80 feet, and even these strips could shrink to 30 feet in areas by averaging overall buffer size.

**3. Buffer reduction:** Although the BAS recognizes buffers as the most effective option for protecting critical areas, the proposed ordinance would extinguish buffers at the edge of existing development, allowing the potential for large impacts in what would have been a buffer zone.

**4. Docks over eelgrass:** Contrary to the recommendation of the County's Marine Resources Committee, docks would be allowed over eelgrass, a light-sensitive marine plant that serves as a rich habitat for critters like Pacific herring and Chinook salmon.

## What's next?

Visit FRIENDS' website for upcoming County Council hearing dates on the CAO. Then prepare your comments and stand up for clean water, fish, wildlife, and safe and responsible development!

## County Council CAO Update Hearing Schedule

[Aug 21 Fish and Wildlife and Wetlands](#)

[Sept 11 Fish and Wildlife and Wetlands](#)

[Sept 20 Fish and Wildlife and Wetlands](#)

[Sept 25 All CAO Update Sections](#)

Dates may change, visit [www.co.san-juan.wa.us/cao](http://www.co.san-juan.wa.us/cao)

# FRIENDS Science Program Updates

## Shoreline Restoration: Wins for Fish, Jobs and our Community

### Smuggler's Cove Road

Over the years, the fine sediment that supported forage fish spawning along the west side of Blind Bay was lost due to armoring along Smuggler's Cove Road. FRIENDS, in partnership with County Public Works, Coastal Geologic Services and Lopez Sand and Gravel, brought in 1,500 tons of beach gravel and 80 cubic yards of small cobble to restore the beach so that it would again be suitable for spawning. Special thanks to the neighbors for their support and patience during construction. FRIENDS received funding for this project from the WA State Salmon Recovery Funding Board (SRFB), the WA Dept. of Ecology Coastal Protection Fund, and FRIENDS members.

better habitat for the insects that juvenile salmon eat. Thank you to the local contractors and community volunteers who helped with this project. Funding provided from a SRFB grant and FRIENDS members.

## Pulling It All Together for Salmon Recovery

FRIENDS and project partners Coastal Geologic Services and Anchor QEA recently completed an analysis of existing local fish and habitat data to prioritize protection and restoration opportunities. This project updated the County's shoreline maps, identified areas important for juvenile salmon and forage fish, and evaluated human alterations of the shoreline. The project identified priority restoration and protection opportunities for San Juan County's diverse marine shorelines. The results will guide salmon recovery actions and can also inform the Shoreline Master Program update.

FRIENDS received project support from a SRFB grant, ESRI (GIS mapping software), donated services and FRIENDS members. Special thanks to the technical team and the San Juan County Salmon Recovery Coordinator for their guidance and to Sally Hawkins for her GIS support. Project reports, maps and other information are available at [www.sanjuans.org/maps.htm](http://www.sanjuans.org/maps.htm)

### Neck Point Salt Marsh

FRIENDS recently restored a saltwater connection between marine waters and a salt marsh that was originally altered in the 1950s. The project reshaped ditches and reconnected tidal channels to improve the saltwater flow between the marsh and marine waters. The work also increased vegetative cover throughout the intertidal salt marsh, which is among the most critical and rare habitat types in the region. The successful restoration resulted in improved water quality, drainage between high tides, fish access, and



## Neighborhood Salmon Conservation

Long-term shoreline habitat protection through easements and acquisitions is an essential part of salmon recovery efforts. However, current land conservation tools are primarily designed only for large parcels. As smaller shoreline parcels are the most common in San Juan County, a program is needed that allows for the participation of multiple neighbors. It is also critical that shoreline easements are designed to protect specific shoreline habitats and processes such as forage fish spawning beaches, marine riparian vegetation and sediment supply bluffs, not just open views.

FRIENDS and project partner, the San Juan Preservation Trust, are meeting with shoreline property owners in priority salmon recovery areas to design a new easement tool that will encourage the voluntary participation of multiple neighbors. This project is funded by the SRFB and the San Juan Action Agenda Oversight Group.

## Restoration Project Cultivation

FRIENDS recently prioritized restoration opportunities based on our 2009 shoreline modification survey, in which we mapped the location of over 3,900 individual structures found along San Juan County's shorelines. We established these priorities based on a combination of potential physical and biological habitat impacts, the feasibility of removal, and habitat benefit factors. Property owners have the opportunity to have a technical

expert explore restoration opportunities with them on-site for free. For those sites with high habitat benefit and landowner interest, we can offer funding to complete feasibility studies and preliminary designs. To find out if you qualify, contact FRIENDS at 378-2319. Funding is provided by the San Juan Action Agenda Oversight Group and the U.S. Fish & Wildlife Service.

## Sea Level Rise and Cumulative Impacts

This past winter, FRIENDS received a competitive grant through the National Estuary Program to study threats to shoreline habitat, private property, and public infrastructure from rising sea levels and the cumulative impacts of shoreline armoring in San Juan County. A technical team of experts will help guide this project.

The armoring of shorelines with bulkheads and roads poses a significant risk to the beach habitat that forage fish need to reproduce, threatening the Salish Sea's long-term marine ecosystem health. The cumulative impacts of shoreline armoring are significant. Armoring has covered nearly 25% of the San Juans' non-rocky shoreline and nearly one-third of the Puget Sound's 2,500 miles. As sea levels rise, demand for armoring is expected to continue or increase.

It's important to start asking the tough questions about which places are going to flood and what we are doing to plan for these changes. The data from this project will inform our community about where to focus our limited resources and how to reduce risks to public infrastructure, private property and habitat.

## Need help getting toxins off your beach?

FRIENDS recently mapped all of San Juan County's in-water creosote pilings documenting a total of 425 individual pilings. Creosote impacts nearshore habitat by leaching pollutants into the water creating long-term toxic conditions. FRIENDS is partnering with the WA Dept. of Natural Resources to prioritize voluntary removal of creosote pilings with interested landowners.

Contact FRIENDS at 378-2319 for more information.



# FRIENDS' News

## FRIENDS' New Community Engagement Director



**Katie Fleming**

FRIENDS is excited to welcome Katie Fleming as our newest staff member. Katie comes to FRIENDS after working for eight years with RE Sources for Sustainable Communities, an environmental education and advocacy organization in Bellingham. Katie's background is in sustainable community development and environmental education. She holds a Masters in Natural Science Education from Huxley College of the Environment at Western Washington University and a BA in Telecommunications from Indiana University. Katie lives on San Juan Island and is passionate about exploring, enjoying and protecting the Salish Sea ecosystem.

"FRIENDS of the San Juans inspires me. I greatly appreciate the organization's commitment

to the health of our environment and am proud to be a part of this dedicated team," said Katie. As the Community Engagement Director, Katie will manage membership and community relations, marketing, media relations and special events. You may hear from her before long!

## FRIENDS' 2012 Summer Legal Interns



**Juan Bacigalupi**

Juan joins us from the Northwestern School of Law at Lewis and Clark College in Portland, Oregon. Juan first visited the San Juans in 2008 to research the Southern Resident Killer Whales. He was quite pleased to return to the islands to continue his legal education while working to protect the San Juan's beauty. He hopes to eventually use his legal skills to strengthen protections for marine mammals against the possibility of harm from naval sonar.

Sona hails from New Orleans, Louisiana, and will start her second year of law school in the



**Sona Mohnot**

fall at Tulane University. Her area of interest is Environmental Law. This past year, she assisted with Tulane's annual Environmental Law Summit and became a member of the Environmental Law Journal. This is her first time visiting the West Coast and she is very excited to learn about and explore the San Juan Islands!

## New Board Members



**Charlie Carver**

Charlie Carver is a gardener, a student of natural history, and a mountaineer who has climbed many peaks while traveling throughout the globe. He has a passion for the outdoors and for historic irises and day lilies. Currently, he is growing over 1200 different varieties of iris in his gardens on Orcas. As his

appreciation of the beauty of flowers ignited his gardening profession, Charlie's passion for the environment will help serve FRIENDS' mission of protecting the San Juans' land, water, sea and livability through science, education and advocacy. Charlie has followed our work since becoming a member in 1999, keeping abreast of the different issues concerning the county regarding growth and its management since that time. He is currently in the planning/design stage of building his own home and will be able to share his own experiences of going through the San Juan County permitting process. As a board member, Charlie offers his insight to the role FRIENDS takes as we analyze, make recommendations and move forward through the current Critical Areas Ordinance

and Shoreline Master Program updates. We are delighted that Charlie has joined our board.



Dixie's strengths lie in her organizational and humanistic character. Her life's work experience has crossed all sectors - from consulting corporate America to directing a non-profit to a professorship. Dixie has made her living studying human and business organizational culture and

will help strengthen FRIENDS' effectiveness as we work to promote local environmental awareness and stewardship. Dixie holds a BS degree in Business Administration and Management, a Master's degree in Human Development and a Doctorate in Human and Organization Systems. Her dream community is one where a divergent population can come together in respectful discourse about important matters that improve the good of all. To this end, Dixie is willing to lend her shoulder to support the idea of 'common good' in FRIENDS' work. Dixie looks forward to helping FRIENDS continue to be advocates, data providers and environmental educators for our community. We are honored to have Dixie, another Lopezian, join our board.

## FRIENDS Remembers John Marx

FRIENDS of the San Juans remembers John Marx for his dedication to preserving this wonderful place and for his enthusiasm for our work. Upon retiring to Friday Harbor in 1983, John became an active member of several local organizations and causes, supporting our collective work with his generous spirit, passionate opinions, and warm smile. He enjoyed backpacking, biking, kayaking and more, and took pride in summiting all 13 of California's 14,000-foot peaks.

John was active on FRIENDS' board from 1997 to 2006, serving as Treasurer from 1997 to 1999. He brought his love for the environment and his business and engineering acumen to benefit our organization. We honor his volunteerism. We also offer our condolences and appreciation to John's wife, Georgia Baciu, who worked the sidelines of our cause during John's tenure at FRIENDS.

John passed away peacefully February 3, 2012, in Bellingham,

WA, after a brief illness. He was 90 years old. We also thank John for remembering FRIENDS in his estate plans; his legacy will help preserve the San Juans for future generations.



# You have to be more careful with an Island!



**Decisions are being made today on how we will use the waters surrounding the San Juan Islands. Oil spills, incremental development, over fishing, and pollution deplete the ocean of marine life. Please join hands with us to ensure policies protect our islands for future generations. To get involved please call 360-378-2319.**

*Photo by Diane Clifton*

## FRIENDS Annual Meeting



Join us for a picnic and discussions on  
**Coal and Tar Sands Shipping in our Waters**  
Saturday September 8, from 11:30 to 2:00 at the  
San Juan County Fairgrounds in Friday Harbor.  
Call 360-378-2319 to RSVP



P.O. Box 1344, Friday Harbor, WA 98250  
360.378.2319 • [www.sanjuans.org](http://www.sanjuans.org)

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