# FRIENDS of the San Juans

**Toxins in our Water** How You Can Help

Critical Areas Update

Questions and Answers

# Shoreline Survey

Preliminary Results

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Orca Protection "No Boat Zone" Proposal

Fall 2009

# **Director's Note**

As FRIENDS of the San Juans celebrates our 30<sup>th</sup> anniversary this October we would like to thank you for the opportunity to serve our community. Some highlights from our past 30 years include: preserving iconic places like Lime Kiln State Park, Madrona Point, and Orcas Landing from development; adoption of the first Comprehensive Land Use Plan; communitybased salmon restoration; and mapping 410 miles of shoreline for forage fish spawning sites, eelgrass prairies, kelp beds and shoreline modifications.

We recognize that our county's healthy community and environment are two key forces that shape our economic prosperity today and in the future. Since 2001, FRIENDS has secured almost \$2 million dollars from grants and used it to support over 40 green-collar jobs in our community. We continue to ensure that local land use decisions are based on sound science and promote sustainable stewardship practices.

In recognition of our 30th Anniversary, a member presented FRIENDS with a \$15,000 matching gift challenge. Please donate in the enclosed reply envelope before October 31<sup>st</sup>, and you can double the impact of your gift. We thank you in advance for helping preserve these magnificent islands!

Sincerely,

Stohne Byp Juld

Stephanie Buffum Field Executive Director

P.S. I hope to see you at our All Species Ball! See back page for details.



# Leave a Legacy... Support FRIENDS through Planned Giving.

FRIENDS wishes to thank longtime FRIENDS member, Andrew Jackson (Jack) Culver II for his help preserving the San Juans for current and future generations to enjoy.

After retiring in 1985, Jack and his wife Nancy moved to Orcas. Jack was a falconer, sailor, model railroad collector, botanist and teacher.

On June 14, Jack passed away. As part of his legacy, Jack included a bequest to FRIENDS of the San Juans in his estate plans.

For more information on including FRIENDS in your estate plans, Contact Stephanie Buffum Field at (360) 378-2319.

#### **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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# Toxins in Our Water

Caffeine, shampoo, anti-depressants, fertilizers...what did you use today? What happens when these seemingly harmless products reach our aquifers, streams and marine waters?

## Pollution from Everyday Products

There are many ways in which toxins are entering our everyday lives and polluting our water. Recent findings show that it is not just industry causing the problem; it is everyday products that everyone uses.

This past spring, FRIENDS of the San Juans' "Toxins in Our Water" lecture series hosted seven speakers to educate the community about current toxins research and to share their perspectives on how to reduce toxins in our everyday life. The following provides highlights from this important community discussion.

#### Surfactants

In the winter of 2007/2008 surfactant pollution from a Friday Harbor stormwater outfall entered the Spring Street Aquarium causing a die-off of its critters (see FRIENDS Spring '08 newsletter). Research by Dr. Mike Kaill concluded that levels of surfactant pollution entering the harbor and other sites around the county far exceeded the EPA's recommended maximum concentration for public waters and exceeded the concentration known to kill rainbow trout.

Surfactants are wetting agents that lower the surface tension of a liquid. This allows easier spreading through adsorption. Adsorption is the accumulation of atoms or molecules on the surface of a material creating a film that harms micro-organisms, fish and other animals in the marine environment. Think soapy and slick. The surfaces that are acted on by surfactants change their characteristics; this can have deadly impacts to organisms that live in water. Surfactants cause gasses to behave differently on fish gills, not allowing the transfer of oxygen. Sea slugs and anemones, whose body surfaces depend on the exchange of fluids, can wither up and die due to the presence of surfactants. Surfactants also can act as "penetration enhancers" allowing other pollutants to have greater effect.

Surfactants are found in just about everything; they are in detergents, shampoos, and soaps; in disinfectants,

ointments and toothpaste; in herbicides, pesticides and fertilizers; in paints, and coatings for wood, metal and plastics; in gasoline, motor oils and antifreeze; and in Twinkies and other packaged creamy foods.

## **Emerging Contaminants**

In a 2002 USGS nationwide study, emerging contaminants were detected in 80% of all water bodies in our country. Many emerging contaminants have been around for a long time but new detection methods are now making it possible to measure their presence. Today, this wide variety of "new" chemicals is being detected in surface waters, wastewater, drinking water, groundwater and sediment throughout the Puget Sound region.

Emerging contaminants include endocrine disrupting compounds (hormones), pharmaceutical and personal care products (sunscreen and insect repellants), bactericides (anti-bacterial soap, non-prescription and prescription drugs) and PBDEs (flame retardants).





Endocrine disruptors are environmental chemicals that affect the function of the system involving the glands and hormones of the body. Endocrine disrupters can cause serious problems to humans and wildlife, including proper development and metabolism. Certain pesticides (DDT), industrial chemicals (PCBs, dioxins), phthalates, phenols (bisphenol A, alkylphenol) and plant hormones (phytoestrogens) are known endocrine disruptors.

Emerging contaminants that are a high threat to marine animals include common synthetic insecticides similar to natural pyrethrins derived from Chrysanthemum flowers and bactericides including disinfectants, antiseptics and antibiotics. Essential oils are also harmful to marine animals and can be human endocrine disruptors.

# Persistent Bioaccumulative Toxic substances (PBTs)

Pesticides, dioxins, lead, mercury, flame retardants, PCBs and PBDEs are known as Persistent Bioaccumulative Toxic substances or PBTs. Persistent means it is resistant to environmental degradation. Bioaccumulative means that even though the environmental levels of the toxins may be lower now than in the past, chronic poisoning still occurs because the chemical is absorbed at a rate greater than it is lost. PBTs are toxic substances that can cause a wide range of health effects in fish, wildlife, and humans. They have been linked to effects on the nervous system, reproductive and developmental problems, immuneresponse suppression, cancer, and endocrine disruption.

PBTs result in increased toxic concentrations higher up in the food web. Locally, PBTs threaten our endangered Southern Resident Orcas. Dr. Peter Ross of Fisheries and Ocean Sciences in Canada, studies the effects of these contaminants on the health of marine mammals. His research shows that it will take 70 more years for the levels of PCB (banned in the 1970s) and PBDEs (partially regulated since 2007) to fall below health thresholds for our Southern Residents Orcas.

#### Heavy Metals

Lead, zinc, copper, mercury, cadmium and arsenic are some of the heavy metals commonly used in industry. But, some are also present in building materials, in makeup, and in cars. Heavy metals are toxic and accumulate in the body and environment. They harm humans as well as marine life.

Point-source controls on industry have significantly reduced the metal load entering the main basin of Puget Sound from industrial sources. However, the recovery rates for lead, copper and zinc began to slow around the late 1980s suggesting that diffuse sources (i.e. increased stormwater runoff from population growth) may impede the continued progress of recovery for these contaminants.

#### Are we safe?

Our waste water treatment systems are not designed to remove most of these contaminants, so they continue to flow down through our watersheds to the next town and out to the sea. Also, stormwater drains do not pass through any type of treatment or filtration process. They are typically designed to move water away from developed areas as fast as possible, so they dump directly into the ocean or rivers carrying all the pollutants they pick up along the way with them.

Water quality standards have not been developed for most emerging contaminants; and, where the EPA has developed

# ONLINE

**Good Guide** - *Ratings of natural, green and healthy products* www.goodguide.com

**Design for Environment** - *Products that have met EPA standards* www.epa.gov/dfe

**Clean Gredients** - *Guidelines for Industrial products* www.cleangredients.org

www.pugetsound.org/programs/policy/toxics/

www.watoxics.org

www.ecy.wa.gov.toxhaz

www.pesticide.org

#### **BOOKS OF INTEREST**

Ecological Intelligence by Daniel Goleman (2009)

Toxic Beauty by Samuel Epstein, MD & Randall Fitzgerald (2009)

**Our Stolen Future** by Theo Colborn, Dianne Dumanoski, and John Myers (1996)

#### VIDEOS

Puget Sound Partnership's Shifting Baselines www.psp.wa.gov/shiftingbaselines.php

PBS Frontline documentary Poisoned Waters www.pbs.org/wgbh/pages/frontline/poisonedwaters

testing protocols, the sheer numbers of chemicals to be tested is overwhelming, very costly and under-funded.

Labeling laws do not require that all ingredients be revealed so it is hard to know what those so called 'inert ingredients' are and if they are actually safe. Cosmetics are also exempt from complete scrutiny. So are we safe? Good question...

#### What can we do?

Ultimately, this is everyone's problem. As the world's population continues to grow, now at a rate of about 10,000 new people per hour, toxins are entering our environment at an unprecedented rate.

Speakers and attendees of the FRIENDS "Toxins in Our Water" lecture series offered the following suggestions for reducing toxins in our environment: use less, go fragrance free, cut back or cut out chemical use where you can, encourage drug take back programs, use products that break down faster and use low-impact development when you build. Mike Kaill also needs help monitoring our local waters. To be a Project Clean Stormwater volunteer, contact FRIENDS at 360-378-2319.

It is important that we think about the cumulative impacts of the products that make our lives seemingly more convenient, but also make us and the environment sick. Every one of us uses some kind of chemical product daily adding to the toxic load in our waters. It is time to re-think the products we purchase and to treat our water resources more wisely.

FRIENDS thanks lecture speakers, Dr. Mike Kaill (Front Street Aquarium keeper), Russel Barsh (Kwiaht), Dr. Randy Shuman (King Co. Parks Water Resource Specialist), Brian Rader (SJC Pollution Prevention Specialist), Sam Buck (concerned citizen), Mark Buehrer (20/20 Engineering), and Dr. Peter Ross (Institute of Ocean Sciences, Canada) for participating.



# The Dirty Dozen...

## Top Product Ingredients to Avoid

Read the label - Buy a safer product - Help yourself and Nearshore Marine Animals.

#### KEY:

 $\S$  - Endocrine disrupters,  $\Delta$  - Carcinogens

#### SURFACTANTS

Sodium Lauryl (Laureth) Sulfate  $\triangle$ Nonylphenol ethoxylate (NPE) § Ethylenediamine tetraacidic acid (EDTA) § Diethanolamine (DEA)  $\triangle$ 

#### **PESTICIDES/ HERBICIDES & BACTERICIDES**

Pyrethroids § Triclosan  $\Delta$  §

#### METALS AND OTHER TOXINS

Copper Cadmium Phthalates DEP, DBP, DEHP ∆ Paraben ∆ Bisphenol A ∆ Fragrance e.g. Musk, lavender §

#### SOME RULES OF THUMB

If the label says "Bio-degradable", be careful. There is no definition or enforcement for what that means. Look for endorsements, not claims.

What's often not told: inactive ingredients can contain harsh pollutants. Natural and artificial flavors, and fragrances can be serious pollutants.

#### DISCLAIMER

There are many thousands of harmful chemical compounds. We've identified a few. You may want to consult sources such as GoodGuide and make your own decisions.

The Dirty Dozen focuses on environmental pollutants in stormwater and their impacts to marine life. Many of these pollutants also affect human health. For full attention to human issues, see the resources listed on page 3.

# Critical Areas Update: Q&A

## What is the Critical Areas Ordinance (CAO)?

In 1990, the state legislature responded to Washington's rapid growth by passing the Growth Management Act (GMA) to guide future development in a predictable, environmentally-sensitive manner. One of the key components of the GMA was its mandate that local governments adopt regulations to protect the "functions and values" of the following "critical areas": Critical Aquifer Recharge Areas, Frequently Flooded Areas, Geologically Hazardous Areas, Wetlands, and Fish and Wildlife Habitat Conservation Areas.

Under GMA, San Juan County was required to update its CAO in 2005. San Juan County is now four-years past this deadline. Of the 12 other Puget Sound Counties, only 3 have yet to complete their CAO updates: San Juan, Thurston and Island Counties. Our county's procrastination prevents us from receiving state grants. The longer we delay in passing a CAO update, the greater the tally of lost funding opportunities. Procrastination leaves fish and wildlife, wetlands and our aquifers with inadequate protections and our people exposed to hazards.

San Juan County Council has a final draft of the CAO update in hand and is seeking comments through letters and at public meetings. Below are answers to some frequently asked questions:

### Why Update the CAO?

1. Because the GMA requires state and local governments to manage Washington's growth by identifying and protecting critical areas.

2. Because it makes sense. Thirty years ago, the waters around the San Juan Islands teemed with thousands of Western Grebes, Mergansers, Goldeneyes and other waterfowl. Chinook salmon, rockfish, and Ling cod abounded. Orcas regularly plied our local shorelines, feeding on the resident Blackmouth and mature Chinook salmon. All of the fish and waterfowl fed on the locally spawned Pacific herring, Pacific sand lance and surf smelt.

Now, our bird, fish and whale populations are collapsing. The foods they eat are no longer abundant. We are losing underwater plants, the base of their food chain, because of the combined pressures from shoreline development, pollution and changes in environmental conditions.

One species has not experienced a decline—humans have increased substantially throughout the islands. This proliferation has led to direct impacts on local wildlife, water quality, and stormwater runoff.

### How Does Development Impact Critical Areas?

Land development affects wildlife by removing food, nesting areas, and cover; by introducing noise and light; through increased predation by cats and dogs; and by grazing of native plants by deer and livestock. Development alters the landscape by replacing forest and native vegetation with hard surfaces such as homes, driveways and lawns, increasing stormwater flows. And denuding an area of organic debris and duff limits the ground's natural ability to strain pollutants before they reach critical areas such as wetlands, streams or beaches. Tree removal along forested streams disrupts the ecosystem's ability to moderate temperature and humidity, keeping streams cool and moist in the summer, and warmer in the winter.

The CAO update will require maintenance of a buffer of trees, vegetation and soil. This buffer provides the best protection from runoff and landslides, and protects humans, property and the natural and built environment. For example, proper management of stormwater will reduce the erosion that carries sediments and pollutants into our streams and marine habitats.

Development in or near geologically hazardous areas threatens people, property and habitats of special concern. For example, the closer a home is to the shoreline, the greater the likelihood that the property owner will want a bulkhead to control erosion. Bulkheads not only impact nearshore habitat but can actually increase erosion rates at the base or edges of the bulkhead and create erosion problems for neighbors.

An effective CAO would help clarify the delicate balance between the rights of property owners and their legal responsibility to avoid impacting the broader community, such as fish, wildlife and water resources, that can be harmed by excessive development or poorly managed land uses.

#### Appropriate Buffer Size?

Buffers are needed to protect fresh and marine waters from sediments and pollutants, maintain fish and wildlife spawning and feeding areas, and reduce risks of damage to property from flooding, landslides, and erosion.

There is some discussion about the appropriate size of critical area buffers. The State Department of Fish and Wildlife has suggested that 150-foot buffers in shoreline and freshwater areas are the minimum necessary to preserve the functions and values of those ecosystems. The National Marine Fisheries Service determined that shorelines need 200-foot buffers to protect endangered species and habitat. Washington courts have found that buffers less than 100 feet do not comply with the GMA.

#### Homes in Critical Areas?

The proposed CAO does not have a significant impact on existing homes. For example, if a home is destroyed by a natural disaster or fire, it can be rebuilt on its existing foundation or, if so desired, relocated outside of the critical area. On properties with critical areas that do not currently have a house, the home would be constructed outside of the critical area so that it would not adversely impact our community's vital natural resources. On properties where the critical areas overlap to the extent that there is no buildable envelope, the County has proposed exceptions for significant construction.

#### What about Agriculture?

Agricultural activity is currently exempt from the CAO and is being resolved by the William D. Ruckelshaus Center. However, a blanket exemption for agriculture as defined by the CAO would subvert most of the protections in the CAO

# "Wild salmon are the lynchpin that holds our ecosystem and our economy together." - George Lawson, Lopez

## Federal Biological Opinion

The National Marine Fisheries Service issued a biological opinion to comply with the Endangered Species Act (ESA) in 2008. The Biological Opinion states that prior to September 2011, San Juan County must take interim steps to ensure that new development does not harm salmon and orca habitat. The CAO's inclusion of shoreline critical areas could bring us into compliance with the ESA requirement and increase some economic certainty for property owners.



### Why Are Critical Area Protections Needed?

Regionally, over 60 marine species have declined significantly and are listed as threatened, endangered or species of concern. Locally, some of these species include: Southern Resident Orca, Stellar sea lion, gray whale, Chinook salmon, steelhead, brown pelican, common loon, marbled murrelet, peregrine falcon and Taylor's checker-spot butterfly. Other local species in peril include: rockfish, Northern abalone, Tufted puffins, Larus gull species, Island Marble Butterfly, and eelgrass.

and is not supported by the best available science on the subject. A narrower definition for agriculture would substantially improve the protections for critical areas.

#### Mitigation Lands?

Some believe that lands protected by local conservation groups can be used as mitigation for development. This is not necessarily true. Properties that the San Juan County Land Bank protects with voter-approved funds cannot be used for mitigation because it would constitute an unlawful subsidy to development. Use of San Juan Preservation Trust lands may be subject to restrictions by donors.

# Are Shorelines included in the CAO Update?

It makes sense to protect critical areas in the shoreline while protecting inland areas. This way, all property owners will strive together to protect our critical areas. Until a 2008 State Supreme court decision (aka "the Anacortes Case"), all counties included shorelines in their CAO updates. This heavily divided decision suggested that CAO updates might not apply to shorelines. However, the



Department of Ecology has stated that county's can opt to include shorelines in their CAO update.

If San Juan County had updated its CAO by the 2005 deadline, the recent "Anacortes Case" would have been moot and shoreline critical areas protected. In fact, and possibly in recognition of the County's delinquency in meeting its CAO update deadline, the Department of Ecology is encouraging San Juan County to include shorelines in its CAO update. If we continue without strengthened shoreline protections, negative impacts to our marine waters will increase with the development of currently undeveloped parcels. These cumulative impacts will be significant because about 48% of San Juan County's shoreline properties remain undeveloped. With declines in salmon, whales and eelgrass, we don't have time to wait for the 2012 SMP update.

### 2 Years of Public Process

In 2007, the County Council appointed a 10-member citizen committee to review the best available science and work with staff to craft the CAO update. That group, which included a builder, realtor, citizen, farmer, private land use lawyer, and representatives from FRIENDS of the San Juans, the Marine Resources Committee, and the San Juan Initiative, spent 2 years preparing recommendations that form the basis of much of the proposed CAO.

# Community Benefits of the CAO Update

1. It offers certainty for people and the environment. The longer we wait to complete the CAO, the longer property owners who want to build near critical areas will be unable to plan for their future. Plus, our county will remain ineligible for certain state grants. Without a strong CAO, our fish and wildlife will likely continue to decline.

2. It is likely to increase property values. While the new regulations will affect how and where new projects are sited on properties with critical areas, property values are anticipated to increase over the long term. Multiple studies have shown increases in property values for parcels adjacent to protected areas and those zoned for environmental preservation.

3. It increases fairness. It is not fair to our community to continue to delay the long overdue CAO update. This delay locks us out of state grants and low-interest bonds. The delay also allows the continuing degradation of habitat and food for endangered species such as the southern resident orca, chinook salmon, and the marbled murrelet.

4. It ensures economic vitality. By encouraging environmentally-sensitive development, the San Juans will remain a desirable location to live, work, retire and recreate.

#### What Can You Do?

- 1) Get Informed:
  - Read the County's draft ordinance and science reports: www.sanjuanco.com/cao
  - Read FRIENDS comments: www.sanjuans.org
- 2) Attend public meetings: www.sanjuanco.com/calendar.aspx
- 3) Write a comment letter and send it to your local government:

SJ County Planner, Shireene Hale shireeneh@co.san-juan.wa.us P.O. Box 947, F.H., WA 98250 County Councilors 350 Court St, #1 F.H., WA 98250

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Bob Myhr (Dist. 6 Shaw/Lopez) 468-2258, BobM@co.san-juan.wa.us

#### **Talking Points**

- Adopt critical areas sooner than later. Waiting costs us all!
- Make our CAO consistent with the NOAA/FEMA Biological Opinion.
- Complete the CAO with an eye toward the Shoreline Management Plan update.
- Revise the Reasonable Use Exception to act as a limitation on critical area destruction. The current proposal would allow a

person to develop in a critical area if *any* reasonable use were denied by the CAO. To be consistent with federal property rights caselaw, this exception should apply only where *all* reasonable use would be prohibited.

- Reject the Mitigation Bank and Fee *in-Lieu* of Mitigation Elements. The proposed CAO suggests that a mitigation bank and a mitigation fund might be used to offset impacts to critical areas. Mitigation has not been shown to be effective in restoring degraded habitats. In addition, an *in-lieu* fee would create a "pay as you degrade" policy.
- Reject the Conservation Area Stewardship Plan (CASP). This alternative does not fully address site-specific conditions. Due to the complexities of CASPs, they should not be allowed on parcels less than 5 acres. The full cost of an expert review should be paid by the applicant and not the county.
- Simplify the regulatory maze. The County lacks the staff and the money to analyze, implement, and monitor proposed Conservation Area Stewardship Plans or mitigation banks.

"Many property owners are not conservation-minded. Voluntary measures have proven ineffective and the CAO update will provide real protections" - Kimbal Sundberg, San Juan

#### It Is Time for SJ County to Comply with State and Federal Laws

2005- State law requires update of our County's Critical Areas Ordinance.

2011- Federal law requires our County to ensure new development does not harm salmon and orca habitat.

2012- State law requires our County to update Shoreline Management Plan.



# Docks, Buoys, and Bulkheads, Oh My!

### Shoreline Mapping

FRIENDS of the San Juans' staff and volunteers recently mapped all of San Juan County's 400 miles of saltwater shoreline for shoreline modifications such as docks, mooring buoys, bulkheads and other structures. Using a small research boat, the location, material and condition of over 3.500 individual shoreline structures were entered into a handheld Trimble GPS device. The results will be used to identifu opportunities to restore habitat vital to surf smelt, herring, sand lance, juvenile salmon, seabirds and marine mammals. This critical information will also help with shoreline planning efforts.

#### Survey Results:

1,914 mooring buoys,

710 armored beaches,

472 docks,

92 individual or clustered derelict pilings,

70 boat ramps,

55 marine railways,

50 marinas/jetties or breakwaters,

32 groins

189 "other" (misc. on-beach structures incl. boat houses, platforms, tide gates, etc.).





Project results have been compiled into a spatially explicit Arc GIS geodatabase, with associated maps, descriptive information and digital photographs for each modification. More details such as miles of shoreline armoring, proximity to priority habitat, and number of modifications by watershed, drift cell or parcel will be available this winter.

## **Application of Results**

Habitat Restoration...This fall, FRIENDS Science Director and other nearshore habitat experts, will analyze the inventory results to prioritize potential nearshore marine habitat restoration sites. FRIENDS will use this information to identify and work with interested landowners to implement voluntary habitat improvement projects.

Volunteers, (left to right: Chuck Rust, Craig Green, Rick Exstrom, John Ashoff and Mary Masters) were critical to the success of this extensive field effort. Also thanks to Project Manager, Jim Slocomb (not pictured) and Interns, Tiffany Stephens (furthest right) and Samantha Palace (not pictured).

## Shoreline Planning

The project fills a key data gap in the San Juan County Salmon Recovery Plan and addresses a top threat identified in the County's Marine Stewardship Area Plan. County-wide modification mapping results will also be provided to local, state, federal and tribal land managers and private conservation entities for use in long-range planning and marine ecosystem recovery efforts.

Funding Provided by Washington State Salmon Recovery Funding Board, ESRI, Robert Trimble and Jensen's Shipyard.

# Why do we care?

Shoreline armoring directly buries habitat important for forage fish spawning, disrupts natural sediment processes and destroys important shoreline vegetation; docks can block the sunlight that eelgrass, kelp and other light dependent species require to grow; and inappropriately located mooring buoys can directly destroy eelgrass plants and habitat.

# Restoring Critical Salmon Habitat

Thousands of structures are impacting beach and shallow water habitats for salmon and forage fish both in our county and across the Puget Sound. These structures are limiting conditions for forage fish, eelgrass and salmon. FRIENDS of the San Juans is working with multiple public and private landowners to restore nearshore habitat by removing shoreline modifications in priority areas.

#### Shoal Bay Surf Smelt Habitat Restoration, Lopez

Last fall, FRIENDS worked with private landowners Gary and Patty Bergen to remove an old concrete and creosote wood "shuffleboard court" structure from the upper beach of Shoal Bay and replenish the site with appropriately sized sand and gravels, restoring a known surf smelt spawning site. This August, surf smelt returned to the site to spawn!

#### Shoal Bay Lagoon Restoration, Lopez

This fall, a derelict tide gate structure and associated fill will be removed from the Shoal Bay lagoon, improving water quality and fish passage conditions for forage fish, juvenile salmon and shellfish.

#### Turn Point Salt Marsh Restoration, San Juan

This fall, an unnecessary rockery will be removed, restoring connectivity between the marsh and the marine environment and restoring upper beach habitat suitable for forage fish spawning.

#### Barlow Bay Community Nearshore Restoration, Lopez

Numerous degraded structures are impacting sand lance spawning habitat and water quality conditions for forage fish, juvenile salmon and shellfish. FRIENDS is working with multiple landowners to remove creosote pilings and armoring from the bay.



"As we were walking along our beach on July 31, to our surprise, excitement, and amazement, all of the effort involved with this project came to fruition as the surf smelt returned to spawn and now had use of the additional beach. Two salmon were also foraging on the surf smelt which is all part of this marine life cycle! We have such a feeling of fulfillment and gratification. Thank you to the FRIENDS and all involved."

Gary & Patty Bergren - Restoration Partners

#### Blind Bay Forage Fish Habitat Restoration, Shaw

Final designs are underway for a beach nourishment project to improve spawning substrate at a documented surf smelt spawning beach.

#### Neck Point Coastal Wetland Restoration, Shaw

Final designs are underway for this project to reconnect a coastal wetland to the marine environment.

Restoration funding provided by National Fish and Wildlife Foundation's Community Salmon Fund, The Washington State Salmon Recovery Funding Board, The Russell Family Foundation and The U.S. Fish & Wildlife Service

Shoal Bay Surf Smelt Habitat Restoration Project Site: Before and After.





# Be a Boater Who Cares

When Boating in the San Juan Islands, You Can Help Protect Eelgrass for Salmon and Orcas

Boaters have an important role to play in protecting the marine environment. When boating in the San Juans, you are surrounded by many marine creatures such as birds, seals, porpoise, and whales. A bounty of life is beneath the surface as well where kelp forests and eelgrass prairies are teeming with activity.

Where you choose to drop your anchor or buoy can impact the health of eelgrass, salmon and orca. How does protecting eelgrass help save orcas? Eelgrass provides nursery habitat, food and shelter for Dungeness crab, juvenile salmon, and salmon prey such as sand lance, surf smelt and Pacific herring. Young Chinook salmon utilize eelgrass to hide from predators, rest and feed while on their migration from freshwater to the sea. And Chinook are the preferred food for our local Orca whales.

Eelgrass praries also benefit people. These flowering marine plants play an important role in protecting shorelines by trapping sediment and absorbing wave energy to offset erosion. Using catch records from commercially important species such as Dungeness crab and Pacific herring, it has been estimated that eelgrass within a single bay provides \$800,000 of direct value in ecosystem services. In Washington State, eelgrass is classified as a priority habitat and is protected under "no net loss" policy.

#### **Eelgrass Protection Outreach Program**

FRIENDS of the San Juans is working to reduce boating impacts to eelgrass habitats through education and on-the-ground restoration. FRIENDS' Eelgrass Protection Outreach Program, provides information to boaters on the location of eelgrass as well as simple tips for protecting this critical habitat. Maps and information developed by FRIENDS are being distributed by local marinas and at our many marine parks.

#### **Eelgrass Restoration Pilot Project**

FRIENDS' Eelgrass Restoration Project is a pilot program that works with interested landowners to upgrade or relocate mooring buoys located in eelgrass. FRIENDS will also study the response of the eelgrass after the buoy is upgraded or relocated. FRIENDS is using the results from our Shoreline Modification Inventory to select the sites for implementing the pilot program. FRIENDS will work with local buoy installers, a small number of interested landowners, and eelgrass experts to improve our understanding of buoy designs and eelgrass habitat impacts. The results of this pilot program will guide future voluntary protection efforts.

For more information on FRIENDS' eelgrass protection efforts or to volunteer with our boater outreach program please contact FRIENDS Science Director, Tina Whitman, at 360-378-2319.

Projects funded by the Salmon Recovery Funding Board, The Russell Family Foundation, The Bullitt Foundation and WDFW.



## You Can Help Protect This Vital Marine Resource

- Anchor out of eelgrass.
  - Place mooring buoys out of eelgrass or use eelgrass friendly buoy designs.
    - Place docks and other overwater structures away from eelgrass.
      - Keep your boat in good working order and quickly clean even small oil spills.
        - Share this information with friends, family and visitors.

# Advocacy

## New Rules Proposed to Protect Orca Whales

On July 28th, the National Oceanic and Atmospheric Administration (NOAA) proposed new rules to protect the Southern Resident Orcas. The proposed regulations would establish a 1/2-mile wide "no go zone" along the west side of San Juan Island from May to September and would prohibit vessels from parking in the path of a killer whale or approaching within 200 yards.

Send your public comments to NOAA by October 27th, the end of the comment period. NOAA will also host a public meeting at the Grange in Friday Harbor October 5th from 7-9 p.m. The regulations would take effect May 2010.

#### Styrofoam Take-Out Ban

On August 20, 2009, the Town of Friday Harbor Council adopted Ordinance 1403, banning the use of polystyrene take-out food containers. This ordinance will take effect April 22, 2010 to allow businesses to use up their foam inventory. On September 1, San Juan County Council followed suit, voting to move forward a similar ordinance for the entire county. Thank you Doris Estabrooks, Kings Market, San Juan Chamber of Commerce and other members of the San Juan Island Anti-Litter Initiative who took the time to testify and move this issue forward.

# the law in action

#### Unnecessary Bulkhead

Bulkheads continue to mar our shorelines and render them less hospitable for wildlife. In July 2009, FRIENDS appealed a permit for an unnecessary rock bulkhead in the Yacht Haven area of San Juan Island. The bulkhead would prevent natural erosive forces from nourishing a surf smelt spawning beach, as well as critical eelgrass habitat with spawning Pacific herring. The applicants supported their requested by pointing to the aesthetic appeal of bulkheads and identifying a lawn and a few trees that might otherwise be impacted by erosion.

## Unnecessary Dock

In March 2009, applicants on Shaw Island requested a dock amidst an eelgrass bed along the southwest shore of the island. While the dock float would rest in a current eelgrass void, FRIENDS urged the County to deny the dock because the pier and ramp extended over eelgrass, and the pilings would be driven into an eelgrass bed, damaging this incredibly rich, diverse ecosystem near our shorelines.

On July 15, 2009, the County Hearing Examiner denied the dock, finding that the applicants had other marine access and that the dock would reduce scenic values and likely harm eelgrass. The applicants have appealed that decision. FRIENDS also appealed a Department of Fish and Wildlife approval for the dock, which resulted in withdrawal of the approval—at least until the applicants propose mitigation for impacted eelgrass and other marine species.

### Navy Training Range Expansion

In April 2009, FRIENDS responded to the Navy's December 2008 Draft Environmental Impact Statement (DEIS) for a substantial expansion of naval training in the Pacific Northwest by submitting comments requesting meaningful environmental review. The proposal would dramatically increase airborne sorties, sonar exercises, and missile events—in many instances doubling them over current levels—within the 122,440 square mile training range that includes skies above northern Washington and the waters of Puget Sound, the Strait of Juan de Fuca, and a swath of the Pacific Ocean that extends 250 miles west from shore.

The DEIS failed to take the requisite "hard look" at environmental impacts. For example, it failed to acknowledge the risks that sonar poses to such species as the endangered Southern Resident Killer Whale and other marine mammals. Neither did it adequately examine the risk posed by the increased likelihood of oil spills, or the release of spent chromium, depleted uranium, and other hazardous materials that result from thousands of rounds of spent ammunition and unexploded ordnance. Keep your eyes open for a Final Environmental Impact Statement later this year.

# **FRIENDS Updates**

## Many Thanks!

FRIENDS wishes to extend thanks to the following outgoing board members: Fred Ellis, Lynn Bahyrch, Tom Owens, Mark Gardner, Chuck Armstrong and Ralph Hahn. All of these dedicated islanders volunteered countless hours to help FRIENDS achieve our mission and goals. We appreciate their continued support as volunteers and ex-officio board members. For more information about volunteering on the FRIENDS board of directors for a 3-year term, please contact our Executive Director, Stephanie Buffum Field at 360-378-2319.

#### Welcome New Board Members

Mike Kaill



Mike was raised in California, served 2 years as a Navy helicopter crewman and then earned a BA in biology and a PhD in vertebrate zoology. After 8 years as an associate professor of biology at the University of the Pacific, Mike went to Alaska, where he was a research supervisor, biologist, and aquaculture coordinator for the state. Upon retirement, Mike lived on a boat for several years, chartering to photographers, and providing a "floating classroom." Mike's wintering in Friday Harbor soon turned into permanent residence and for the past 20 years, Mike has been a rockfish consultant, conducted eelgrass SCUBA surveys, taught at Skagit Valley College, and served on various local boards and committees. Mike is currently taking care of the Spring Street Aquarium, working to reduce toxins in the waters of Friday Harbor and writing. Mike joined the FRIENDS Board last November and was voted as the FRIENDS new Board President in July.

#### Vivien Burnett



Vivien is a west coast native. She has lived on San Juan Island for 20 years, and recently sold Dolphin Arts -Cotton Cotton Cotton, a retail shop in Friday Harbor. Her two daughters and their families also reside on San Juan Island. Vivien's career has centered around art, advertising and public relations. Her hobbies include, painting, yoga, sailing, kayaking, gardening, walking, writing poetry, and cross country skiing. Vivien has been a volunteer for FRIENDS for many years. She joined the Board in July. "The environment has always been my passion, and I am thrilled to be working with FRIENDS of the San Juans. When I was a business owner I never had the time to be fully involved. Now I do. There are many exciting challenges facing us and I am grateful to be part of an innovative, action oriented team. I believe that each and every person can make a difference".

## Potholes in Paradise

Orcas Island member Joe Symons provides an insider's view on people, money, technology, culture and community as played out in one of the most remote and beautiful islands in America.

"Reading this book was so timely-not to mention inspiring and helpful! I'm on our library board and have just ordered a copy for the library. Everyone should read this! It helped me enormously and brought home the fact that the issues we face in our small communities are the very same BIG issues facing our planet." --Pam Freir Buy "Potholes in Paradise" directly from the Olga author at www. *centripetus.macwebsitebuilder.com/books.html* 

POTHOLES IN PARADISE

SYMONS

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# **FRIENDS Conservation Intern Program**

#### Legal Interns

This summer, FRIENDS legal program was assisted by two legal interns, Courtney Foley (below left) and Emily Estrada (below right).



Courtney grew up in Santa Barbara, California, where she had the opportunity to hike in the Santa Ynez Mountains and enjoy cliffside beaches. She took her love of the coast to the University of Oregon School of Law, where she plans to obtain certificates in Ocean and Coastal Law along with Environmental and Natural Resources Law. Prior to her internship with FRIENDS, Courtney worked with other Environmental non-profit organizations dealing mostly with land conservation and sustainable development. During her third year at the University of Oregon, Courtney is participating in the Environmental Law Clinic and staying active in her involvement with the Public Interest Environmental Law Conference.

**Emily** is about to embark on her second year at the University of Maryland School of Law in Baltimore, where she plans to complete a certificate in Environmental Law and participate in the Women, Leadership and Equality program. Until this summer, she was a resident East Coaster, having grown up in Connecticut and attended college in Boston. Emily was overjoyed to spend the summer working at FRIENDS and exploring the San Juan Islands, and looks forward to bringing the knowledge she gained from this internship back with her to Baltimore.

#### Science Intern

FRIENDS science program benefited greatly from its first science intern, Tiffany Stephens (below).



Tiffany received her Bachelor's degree this spring from the University of Washington, specializing in marine biosciences. During her studies, Friday Harbor Laboratories brought her to San Juan Island last year, where she has completed coursework in intertidal and pelagic ecosystems. Tiffany also completed a seagrass internship. This spring, Tiffany joined FRIENDS as our 2009 Science Intern working on the Shoreline Modification Inventory and Eelgrass Protection Projects. Other than ecological work, Tiffany is interested in bridging the gap between scientific and public realms through outreach, education and environmental journalism.

### Clean Stormwater Intern

Under the supervision of Dr. Mike Kaill, Stephen Chadwick is helping to study surfactant pollution in our nearshore waters, address the sources, and reduce surfactants in Friday Harbor and elsewhere. Stephen and Mike are conducting stormwater surveys, product evaluations, and community networking and outreach.



Stephen is currently enrolled in Friday Harbor High School as a Junior. He hopes to go into a career researching biology or physics. He has taken the AP Environmental Sciences course, which has proven to be very useful with Project Clean Stormwater.

#### 2010 Internships Available

#### Summer Public Interest Law Program

Science Program

Project Clean Stormwater

#### Dollars for Scholars High School Interns

For more information, call (360) 378-2319.



You've helped protect the San Juans for 30 years... We want to kick up our fins, feathers and tails and say thank you!

## Celebrate Our 30th Anniversary

Come Dressed As Your Favorite SpeciesAwards for Best CostumesOrcas Island Oddfellows Hall - Sat. October 10, Reception 7-8, DJ Dancing 8-11Friday Harbor Grange - Fri. October 16, Reception 7-8, DJ Dancing 8-11Entrance is Free to Members OR Join at the Door, \$5 Event SpecialFor more information call 360-378-2319



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