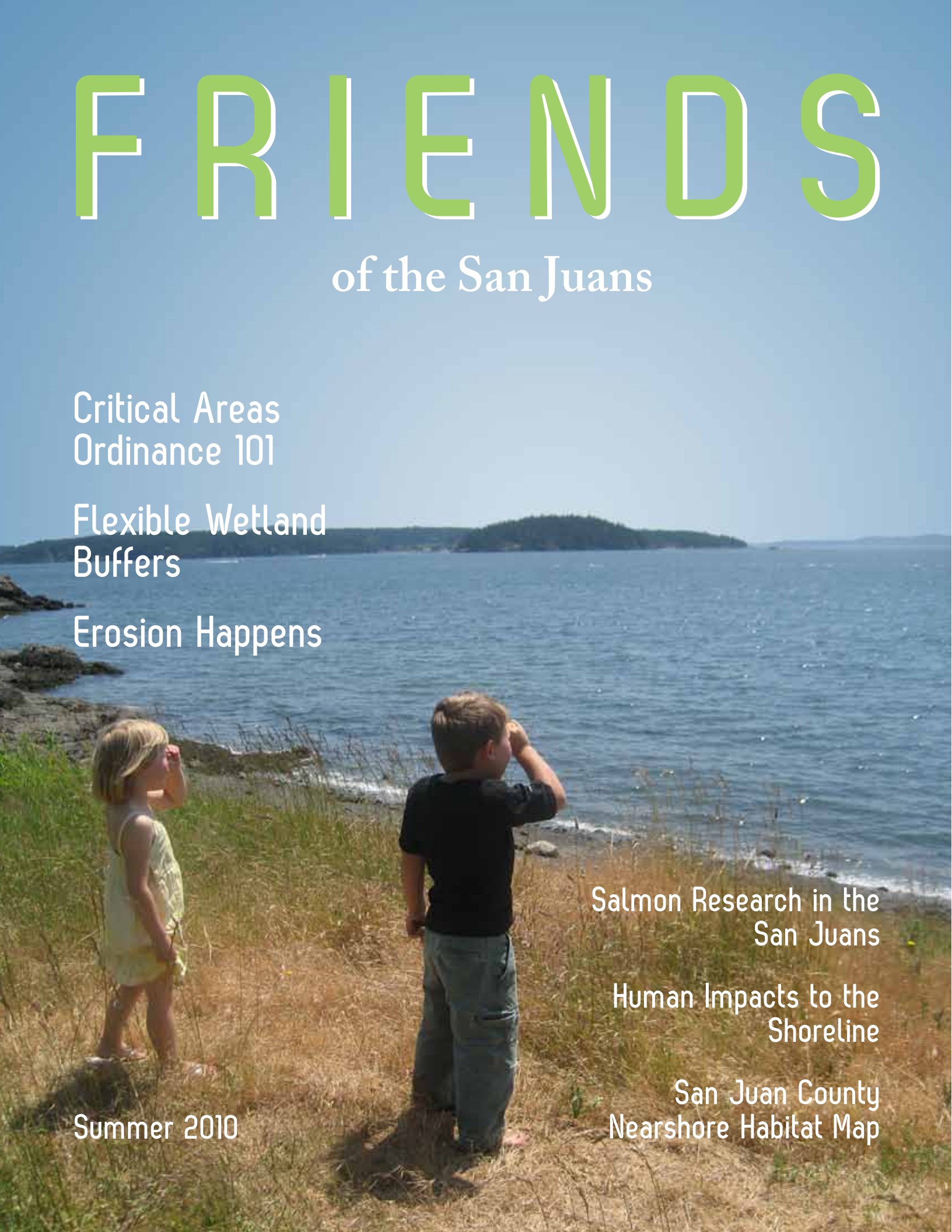
FRIENDS

of the San Juans



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San Juan County Nearshore Habitat Map

Summer 2010

Executive Director's Report

This April my 5 year old son, Max, and his dad were scouting for a place to build a fort in the woods. They found a hollow near our house left by a decomposed old tree root ball. Much to their surprise and delight, that special place was already inhabited by someone…a salamander! They called me to see what they found. Having grown up in western Oregon, where I frequently found newts and salamanders, I was delighted with their discovery. After emailing pictures to our local county wetlands expert, Scott Rozenbaum, we were informed that this was a long-toed salamander (Ambystoma macrodactylum), a species common on the mainland, but until now only found on Orcas, Cypress and Patos Islands.

This salamander had traveled quite a distance from either our wetland or the neighbors bog. There are fewer salamanders today than when I was a child. I can't imagine my son not having the opportunity to search for salamanders in the wild. I work hard to preserve these natural wonders so that he can one day discover a salamander with his own child one day.

Our islands are filled with natural wonders and we treasure the special areas where we can have close encounters with wildlife right in our own back yards! Wetlands, forest, lakes, marine shorelines…we depend on these areas to recreate, view wildlife, fish and harvest oysters, clams and crab. We depend on clean water to drink, play in on a hot summer day, and for healthy shellfish.

This newsletter is devoted to our island's critical areas and the County's update of its Critical Areas Ordinance (CAO). To achieve meaningful revision to the CAO, the involvement of local citizens is essential. Thus we have devoted this newsletter to remind us all what the CAO update is and why we should all care about getting it right.

San Juan County's existing ordinance is both out of date with current scientific understanding and limited in its ability to protect environmentally sensitive areas. We must enact an effective CAO to keep drinking water clean and available; protect homes from floods, erosion and landslides; and preserve wetlands, fish and wildlife habitat.

San Juan County is required to utilize all Best Available Science in the CAO update. In the past 10 years, local scientists have conducted surveys of our natural resources. This newsletter highlights some of this fascinating research.

Your active participation throughout this process is vital and FRIENDS is here to help you. You can learn more on August 28th at our Annual Meeting on Lopez. Come hear about the CAO and salmon in the San Juans, and visit two of our beach restoration sites. To R.S.V.P., call 360-378-2319.

FRIENDS wishes to thank all of our members who contribute to our ongoing operations to make this place a great place to live, work and recreate. Together we are making a difference.

Sincerely,

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.

P.O. Box 1344, Friday Harbor, WA 98250
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Critical Areas Ordinance 101: The Basics

By Harrison Long, Legal Intern
FRIENDS of the San Juans


Photo by Mark Gardner

San Juan County is currently updating its Critical Areas Ordinance (CAO), an important part of the County's comprehensive land use plan and the primary means for protecting natural resources, such as drinking water, our most treasured plants and animals and their habitats. The ordinance will also seek to avoid building in areas where structures are more likely to be at risk of damage, such as locations beset by frequent flooding, or where the land is unstable. While the resulting ordinance will impact some land uses directly, just like current regulations require a separation between septic systems and wells, it's overall goals are to preserve and enhance the quality of life and environment, and protect property in the San Juan Islands.

In 1990, Washington State passed the Growth Management Act (GMA) to promote smart growth through comprehensive land use planning. One of the top aims of the GMA is the protection of environmentally sensitive areas throughout the State. To help achieve this goal, the GMA mandated that certain counties and cities adopt individual comprehensive land use plans to regulate development and ensure proper protection for environmentally sensitive areas. These localized plans allow municipalities to find the best methods for directing and managing growth while still meeting statewide goals and criteria.

Notably, San Juan County adopted a comprehensive plan in 1979 that preceded the State's GMA requirements. Following the passage of the GMA and after an extensive public process, San Juan County adopted a new Comprehensive Plan that followed the planning framework the state provided.

Each comprehensive plan includes a Critical Areas Ordinance, which is designed to limit development in areas that are especially significant for maintaining ecological balance and human health and safety. Counties are required to update their CAO every seven years to ensure continued compliance with the GMA and to incorporate new scientific discoveries and best development practices. San Juan County was due to update their CAO in 2005.

The CAO addresses five environs: critical aquifer recharge areas, fish and wildlife conservation areas, geologically hazardous areas, wetlands, and frequently flooded areas. The CAO must use the best available science to identify these critical areas and their surrounding buffers, and to determine how to preserve the functions and values of those areas. The CAO must achieve no net loss of the functions and values of these areas.

Critical areas perform a number of valuable environmental and physical functions. Fish and Wildlife Conservation Areas are havens for native species, including smelt, sand lance and salmon. Wetlands are some of the most biologically diverse habitats in our region, and host migratory birds and numerous protected species. Critical Aquifer Recharge Areas provide potable water to wells and springs, and are essential to humans and animals alike. Frequently flooded areas are found in and around valuable riparian waters and convey storm water into the underlying aquifer system. Geologically Hazardous Areas are susceptible to erosion or other destabilizing forces, such as earthquakes, that pose a risk to human safety if overdeveloped.

CAOs typically meet no net loss requirement through restrictions on development in and around critical areas, including buffer zones and, when development is allowed

within a critical area, mitigation efforts. Buffer zones provide a reasonable distance between development and sensitive environments that increase safety for the development and preserve ecological functions within critical areas. Buffer distances vary based on the type, quality and sensitivity of the particular area in question. In those instances where a critical area and its buffer protect an entire parcel, San Juan County has proposed a reasonable use exemption that allows owners to develop land for residential use. Existing critical areas maps indicate that the vast majority of properties in the San Juans do not have critical areas across their entire parcel.

In cases where part of a property is designated for protection but has already been developed, the structures and uses already in place at the time of designation will be "grandfathered," with the existing use continuing into the future. Grandfathered structures may even be expanded if certain requirements are met, such as developing in a direction away from the protected area.

The areas designated for protection under the CAO represent some of the most ecologically sensitive and diverse environments in our islands. They are vital to sustaining the ecology and quality of life we have come to expect in the San Juans. However, some groups have tried to create fear that the new regulations will cripple development and stifle the ability to use and enjoy property. These worries have not been borne out in similar Washington counties that updated their CAOs by the 2005 deadline.

As the county moves closer to adopting the new critical areas ordinance, it is important to make sure that discussion centers on protecting our irreplaceable environmental heritage, rather than on unsubstantiated fears about property impacts.

Working Toward Adoption

After a delayed CAO update process that has spanned seven planning directors and three county councils, San Juan County is poised to make real progress on the CAO. Since January, the San Juan County Council has had half a dozen focused meetings on some of the nuts and bolts involved in the state-mandated update.

In February, the Council met with the Washington Department of Ecology to discuss wetlands, buffers, and non-conforming uses. In April, the Council asked County Administrator Pete Rose to bring a revised work plan and timeline for completing the CAO. In June, about 75 citizens attended a joint Planning Commission / County Council meeting with the WA State Department of Commerce, which oversees GMA implementation.

The CAO workplan establishes a Critical Areas review schedule and public participation plan leading up to the final hearing for the CAO in June 2011. Thus far, the County is meeting the workplan timeline. A call for Best Available Science was concluded this summer. Dr. Paul Adamus of the Oregon State University has been contracted to guide the development of "tailored" wetlands regulation similar to Island County's CAO. The County also recently hired additional contractors to complete the CAO and begin work on the Shoreline Master Program update (due in 2012).

The County has scheduled public workshops for this fall on the CAO, followed by a public hearing this winter. Beginning in January, 2011 there will be public workshops and hearings for specific sections of the CAO.

What Can You Do?

We need to act now to ensure the future economic and ecological vitality of the San Juans. As our county grows, the pressure to modify the natural water flow, forests, wetlands, and shorelines will increase. Updating the CAO gives our community the best opportunity to protect property and ensure clean water, fish and wildlife for future generations.

Get Informed and Involved

Review the County CAO website: www.sanjuanco.com/cao/

Read the CAO workplan: www.sanjuanco.com/council/docs/Resolutions/2010/Resolution 2026-2010.pdf

Contact the Planning Coordinator Shireene Hale for the latest information on the CAO update process at 370-7569 or ShireeneH@sanjuanco.com

Contact your elected officials and tell them you care about critical areas and want them to be protected.

Attend public hearings and voice your opinion.

Sign up to receive FRIENDS email Action Alerts.

Take the FRIENDS CAO Quiz www.sanjuans.org/pdf_document/CAO_Quiz.pdf

Attend the FRIENDS Annual meeting August 28th and get informed about the CAO.

Flexible or Fixed Wetland Buffers?

By Stephanie Buffum Field, Executive Director FRIENDS of the San Juans

Buffer zones provide a reasonable distance between development and sensitive environments that increase safety and preserve ecological functions. There is considerable debate about the appropriate size of critical area buffers and whether to use a fixed or flexible approach.

For some time, FRIENDS has urged the County Council to consider flexible buffers for wetlands that provides a graduated scale of widths based on the characteristics of the area and habitat scores. In February, the Department of Ecology (Ecology) informed the Council that it uses such a system* throughout the state.

In Appendix 8-C of its Wetlands in Washington guidance document, Ecology identifies three alternatives for wetland buffers. The most flexible buffer, Alternative 3, would design buffer widths based on wetland category, intensity of impacts, and wetland functions or special characteristics.

Alternative 3 offers several benefits: Flexibility for property owners; site-specific buffer protection guided by the quality of the wetland; consistency with best available science requirements; and consistency with the practice in other jurisdictions.

Alternative 3 also has several disadvantages: A buffer cannot be established in the absence of a rating for the wetland, requiring more predevelopment site research and review. Code enforcement against buffer impacts will be more complex due to the site-specific variability of individual buffers.

Land management is a balancing act for local governments who struggle to achieve site specific and flexible regulations with limited staff and resources. A balance needs to be found to ensure wetlands maintain their functions and values, capacity of the county to administer and cost to the applicant. San Juan County has hired a consultant to develop their own tailored wetland buffer system instead of following Ecology's guidance. The County does not currently have the technical expertise or staffing to implement a flexible buffer system that lacks Ecology's technical support. A natural resource planner position could be provided through permit fees. Regardless of the final approach selected by San Juan County for assessing wetlands, improved protection of wetlands within San Juan County is an essential step in ensuring long-term vitality of our community.

** This option is described as "Buffer Alternative 3A" in Wetlands in Washington – Volume 2: Guidance for Protecting and Managing Wetlands, Appendix 8-C, found on-line at: http://www.ecy.wa.gov/programs/sea/wetlands/bas/volume2final.html.*

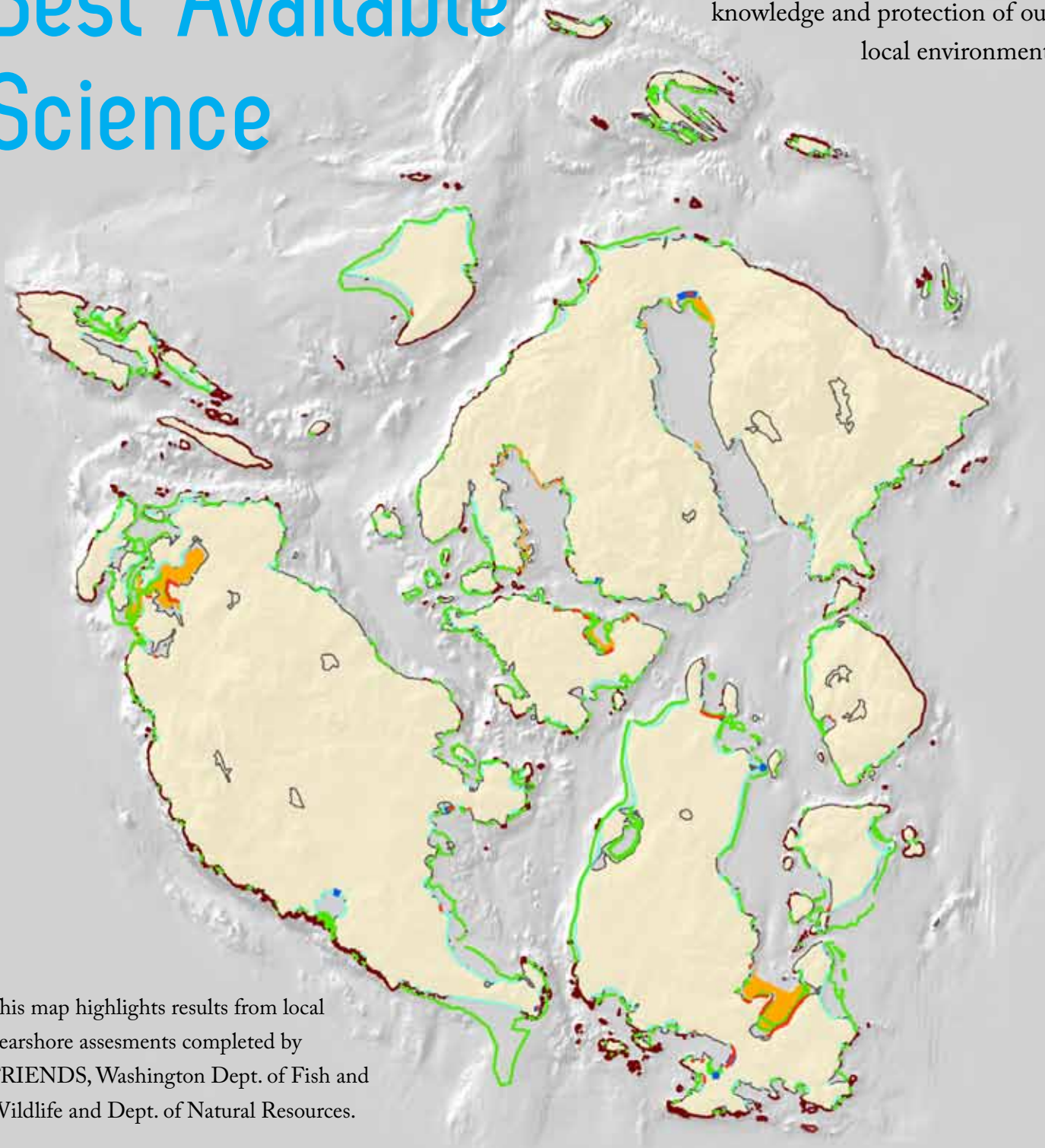
Critical Areas Ordinance 101:

The Basics

photo: Ron Keeshan

Critical Areas: Best Available Science

For 10 years, qualified scientific experts at FRIENDS and other organizations have completed research, inventories and assessments using standardized methods to improve the knowledge and protection of our local environment.



This map highlights results from local nearshore assesments completed by FRIENDS, Washington Dept. of Fish and Wildlife and Dept. of Natural Resources.

- Surf Smelt Spawn Area
- Pacific Sand Lance Spawn Area
- Outerline of Eelgrass
- Potential Forage Fish Spawning Habitat
- Pacific Herring Spawn Area
- Bull Kelp

FRIENDS Provides Local Science

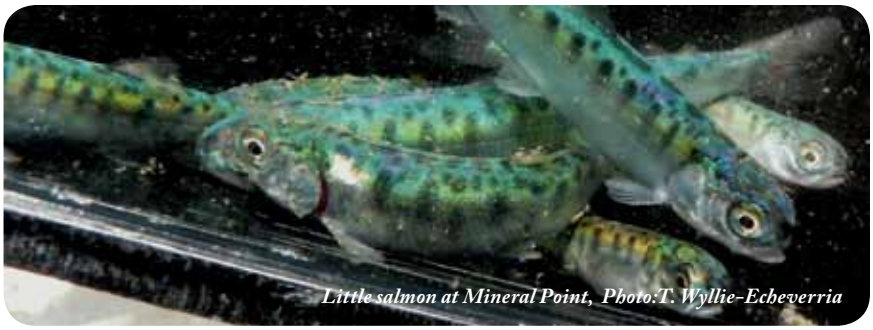
By Tina Whitman, Science Director FRIENDS of the San Juans

Over the past nine years, FRIENDS has conducted county-wide assessment and mapping projects for surf smelt and Pacific sand lance (forage fish) spawning beaches, eelgrass, and bull kelp (see map on opposite page). These critical habitat areas are the nursery grounds for the marine food web that supports endangered species such as Chinook salmon and Orca.

FRIENDS research has also informed our understanding of human impacts within the shoreline environments of San Juan County. This research includes an analysis of permit activity (1972-2005), multiple restoration and protection project assessments, and a shoreline modification inventory (2009) that mapped docks, bulkheads, ramps, buoys and other beach structures (see page 8).

FRIENDS comprehensive nearshore marine data sets are accepted and used as best available science by land managers and marine species recovery experts. Assessment and inventory project results are also used to identify habitat restoration and protection projects and inform local and regional policy.

For more information on FRIENDS shoreline research, and copies of reports and maps, please visit our website: www.sanjuans.org/NearshoreStudies.htm



Little salmon at Mineral Point, Photo:T. Wyllie-Echeverria

Little Fishes Everywhere

By Dr. Tina Wyllie-Echeverria, Fisheries Scientist

Over the past five years, Dr. Tina Wyllie-Echeverria, in collaboration with Skagit River System Cooperative, has conducted an assessment of out-migrating juvenile salmon and other fishes using the shallow water habitats of San Juan County. These studies are providing new local science that is vital for local and regional marine restoration and protection efforts.

Scientists and volunteers sample sites all around San Juan County using a beach seine net and catalog the species composition and size range of each catch. The seine net is set in a U-shape from the beach. It is common to haul in 20 species of fish as well as juvenile Dungeness crab, shrimp and jellies. In the winter months, the day's catch will be dominated by fish that live year-round in the shallows: gunnels and sculpin that great blue herons eat. In spring the catch is mostly young, juvenile fish such as chum and pink salmon, tom cod and pollock. In summer the fish are larger and the catch includes juvenile Chinook and Coho salmon, lingcod and greenlings, English sole and starry flounder, sand lance and herring.

Many fish that rely on the nearshore when they are small will move to deeper water for the remainder of their lives. You may have recognized some of the names fishers like to catch, such as salmon and lingcod but others, such as English sole and pollock we usually purchase at the store. And don't forget Dungeness crab that shows up in the market and in our crab pots! All these species live in the shallow waters of San Juan County. Next time you are at the beach, take off your shoes and stand in the quiet waters, maybe you will spot some of our fellow residents.

Funding provided by the WA Salmon Recovery Funding Board. The Skagit River System Cooperative provides natural resource management services for the Sauk-Suiattle Indian Tribe and the Swinomish Indian Tribal Community.

For more information visit www.skagitcoop.org/index.php/research/

Critical Areas:

Best Available Science

Erosion Happens!

By Jim Johannessen, Principal, Coastal Geologic Services

Bluffs and beaches are the most dynamic landforms in San Juan County. They are the reason many people cherish the islands, but they are also among the most threatened by development. Bluffs provide the overwhelming majority of sand and gravel that forms and maintains local beaches. Waves transport sediment alongshore and storm waves pull sediment offshore from pocket beaches. Erosional bluffs are also called "feeder bluffs", a term coined by the pioneering local coastal geologist Wolf Bauer in the 1970's, as they "feed" the beaches. Both the classic high bluffs and the much lower and slower receding banks are critical sediment sources for many more miles of shores. Continued input from bluffs is needed to prevent significant beach erosion, property and habitat loss.

FRIENDS and the Marine Resources Committee contracted Coastal Geologic Services to complete a county-wide mapping of both current and pre-development feeder banks and bluffs. Through field surveys and review of historic photos and maps, new maps will improve implementation of existing rules and limit risks to property. Mapping results will also help identify the most important places to restore sediment supply, and ensure habitat is available for key species such as spawning forage fish (surf smelt and sand lance) and eelgrass. Preliminary results of historic conditions mapping show that a considerable portion of currently armored shores were once feeder bluffs.

Beaches, where logs, small plants, and adjacent larger shrubs and trees (collectively referred to as marine riparian vegetation) occur have been found to be important feeding and cover areas for birds and mammals as well as the insects that juvenile salmon depend on. Many forage fish spawning beaches have already been altered by residential development and shore modifications that impact beach sediments and spawning habitat. Improved habitat protection and shoreline restoration will help ensure that fish can still make a living in the islands.

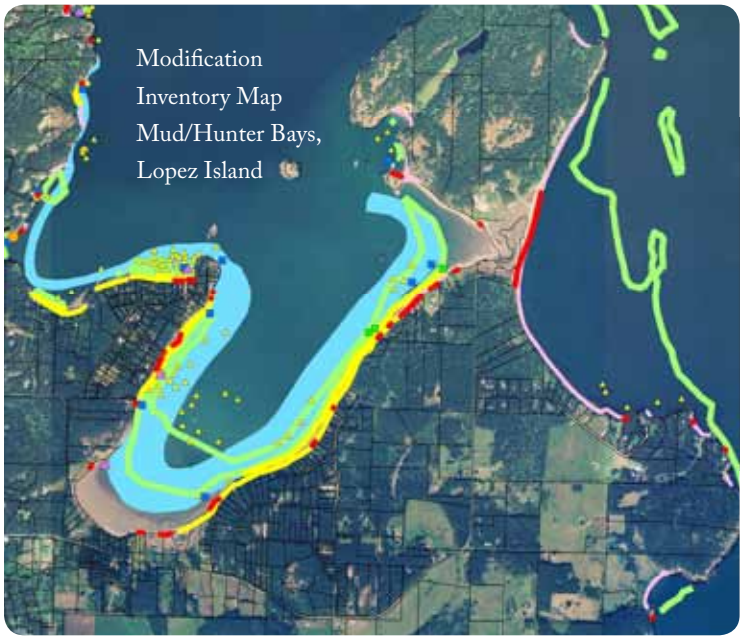
Beach erosion is a natural part of coastal processes. In the coming years, county beaches will be subjected to increased erosion due to sea level rise and intense storms. Improving shoreline management will help reduce losses to property, habitat and recreational opportunities. Unless we allow room for our dynamic coasts to adjust, we may someday find ourselves devoid of many of this region's iconic landforms and species.

Funding provided by the WA Salmon Recovery Funding Board, the Northwest Straits Commission and the Puget Sound Partnership.
Coastal Geologic Services specializes in analysis and management of beaches, bluffs, and estuaries in the Pacific Northwest. CGS conducts geologic and nearshore assessments, coastal mapping, and coastal restoration design and implementation.

For more information visit www.coastalgeo.com

Understanding Human Impacts in the Shoreline

By Tina Whitman, Science Director
FRIENDS of the San Juans



With over 400 miles of marine shoreline located at the confluence of Puget Sound, Georgia Strait and the Strait of Juan de Fuca, the nearshore habitats of San Juan County play an important role in salmon, seabird and orca recovery efforts. Bulkheads, docks, ramps and other beach structures threaten the habitat and habitat forming processes essential to marine food webs. The proliferation of these structures is one of the greatest threats to the ecological functioning of coastal systems. Modifications often result in the loss of the very feature that attracted coastal property owners in the first place, the beach.

Last year, FRIENDS completed an inventory of major shoreline modifications, to identify restoration opportunities, improve understanding of the cumulative impacts to the environment and provide a baseline against which protection and restoration efforts can be measured over time. Results indicate that the current level of impact to San Juan County shorelines is much higher than previously believed and that the vast majority of impacts are associated with residential shoreline development. While each individual shoreline modification may not be negatively impacting habitat, and all are not avoidable, many are negatively impacting habitat, and many are avoidable.

Forty percent of shoreline parcels in San Juan County already have at least one beach structure. While impacts are concentrated within embayments and other sand/gravel environments of the county, very few unmodified stretches of shoreline remain. Neither outer islands nor shoreline and marine parks are immune from the proliferation of shoreline structures. Nearly 4,000 modifications were documented on local shorelines, including over 700 bulkheads, 472 docks, 32 groins, 55 marine railways, 70 boat ramps, 1,914 mooring buoys and floats, 425 pilings (not associated with a dock or marina), 50 marinas/jetties/breakwaters, and 191 "other" intertidal man made beach structures. Stairs and stormwater outflow pipes were not included in the survey. Project results have been shared with local and regional managers and scientists and will be used by FRIENDS to identify local restoration opportunities and inform policy work.

Critical Areas: Best Available Science

As our understanding of the linkages between human actions and impacts on ecosystem function continues to improve, it is becoming ever more apparent that marine ecosystem recovery will require a significant improvement in net habitat quality. Merely slowing the pace of degradation and loss will not be enough if we hope to see rebounds in populations of iconic species such as salmon and orca. While habitat restoration efforts are and will continue to be important, more attention must be paid to the ongoing habitat declines that continue to occur. FRIENDS support of stronger protection strives to achieve greater gains, for people and the fish and wildlife they cherish.

Primary funding provided by the WA State Salmon Recovery Funding Board.

For more information visit www.sanjuans.org/science

Wetlands & Pastures Feed Juvenile Salmon

By Russel Barsh, Director, Kwiáht

From April through early October, many of the islands' bays sparkle silver with juvenile salmon "leapers" feeding in our waters on their way to the open ocean. By late June, most leapers are endangered wild Chinook and coho salmon.

The Lopez-based conservation laboratory Kwiáht and its volunteers have been studying the diet of juvenile salmon in island bays since 2008. A 120-foot seine is used to catch several thousand fish at a time—including up to 200 juvenile Chinook. Salmon are quickly separated and individually sedated, identified, measured, fin-clipped, stomach contents cleaned out, and moved to monitored "recovery room" buckets before release.

More than 600 little Chinook have been studied so far. Only about a third of them had eaten smaller fish—almost always sand lance. The rest had either eaten small crustaceans such as crab larvae and "sand fleas" that live close to shore, or insects such as midges and ants that swarm in late summer and often drift out to sea. The proportion of insects in the juvenile Chinook diet grows to nearly half by the end of August. Some individual fish seem to prefer insects even when sand lance are available.

Juvenile Chum and coho ate some insects and some fish, but relied mainly on crustaceans.

And non-salmonid fish in the same "feeding aggregations"—in the same bay on the same day—ate no insects at all. Hatchery Chinook ate more insects than wild Chinook, which may reflect habits learned at hatcheries where they are fed on the surface.

The real story is the source of the insects. In a complementary study, Kwiáht's students have been collecting insects from different habitats around Lopez to match them with the insects found in juvenile salmon stomachs. Many insects come from wetlands; however, about half are most abundant in meadows, fields and pastures. This new local science provides even more evidence as to why we need to protect our remaining wetlands and open spaces.

Funding provided by the WA Salmon Recovery Funding Board and the National Fish & Wildlife Foundation. Kwiáht is a non profit organization created to offer citizen based research for stewardship of the San Juans.

For more information visit www.kwiaht.org

Critical Areas:

Best Available Science

l. Community volunteers bring in the 120-foot seine at Watmough Bight, Lopez, r. Lopez volunteer Cathy Wilson lavaging a juvenile salmon. Photos by Gene Helfman

Spongy, Muddy, Grassy...Wonderful Wetlands

By Scott Rozenbaum, Wetlands Scientist, Rozewood Environmental Services

What roles or functions do wetlands play in the San Juan Islands? Primary functions include wildlife habitat, water quality improvement, storage of stormwater runoff or floodwaters, and erosion control. The slow release of stored waters contributes to the hydrology of streams, lakes, and shorelines while also recharging aquifers.

Wetlands can provide a wide range of wildlife habitats for breeding, nesting, rearing, foraging, and resting. Examples include inundated pools and marshes where Pacific chorus frogs, rough-skinned newts, long-toed salamanders (on Orcas, Shaw, Patos, and Cypress Islands), and northwest salamanders (on Lopez Island) breed in spring. Flooded reed canarygrass and pasturegrass areas provide foraging and nesting habitats for birds such as snipes, marsh wrens, and Sora. Willow thickets are used by red-winged blackbirds and varieties of warblers.

Marshes and willow thickets support small invertebrates (such as insects and spiders) that are food sources for amphibians, birds, and fish.

Wetlands can improve water quality through biological, chemical, and physical processes. For example, wetland soils and vegetation provide filtration for surface waters and shallow ground water. Even wetlands overrun with invasive reed canarygrass can act as effective filters. During our wet winter months, many broad pasture basins become flooded. These areas, as well as smaller localized depressions, detain tremendous volumes of stormwater and floodwaters. Wetland vegetation also helps control erosion in various settings. In some coastal salt marshes and along lake shorelines and meandering drainage ways, dense wetland vegetation can slow fast-moving and erosive water or decrease the impacts of waves.

Not all wetlands provide all functions. For example, a seepage sloped wetland provides little stormwater storage because the slope doesn't allow water to be detained. Wetlands underlain by dense clays, glacial material, or bedrock may offer marginal aquifer recharge. An annually hayed wet pasture wetland may not provide breeding habitat for birds requiring swampy woodlands. Wetlands with only saturation or temporary inundation will not provide egg-laying conditions for local amphibians. To determine the functions of a specific wetland, contact a wetland scientist or carefully observe the area, especially over the changing seasons. You may be surprised at what you'll learn!

Scott Rozenbaum of Rozewood Environmental Services is a professional wetland scientist & certified professional soil scientist. For more information visit www.rozewood.com

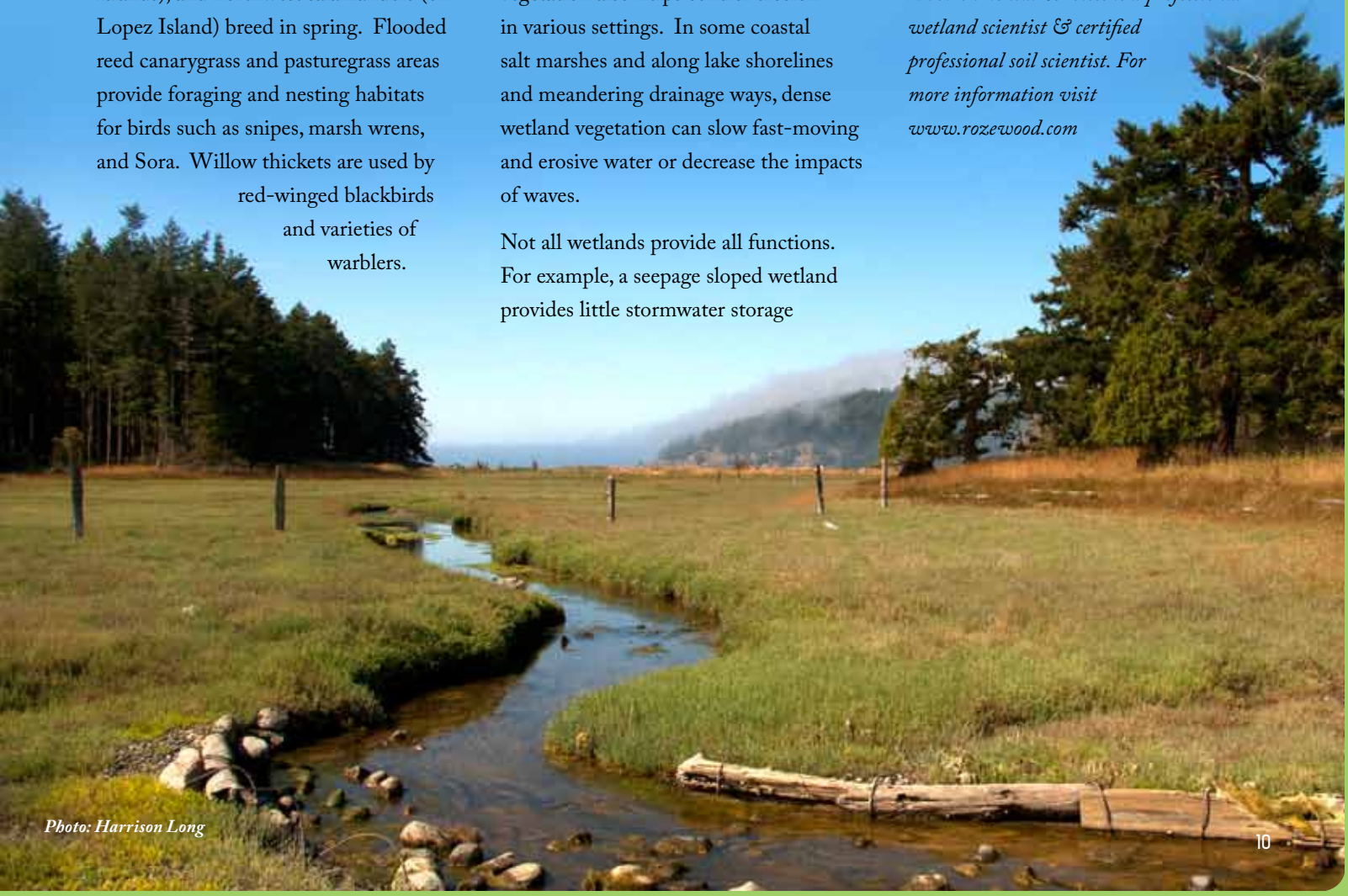


Photo: Harrison Long

Salmon and Trout Found in Local Streams

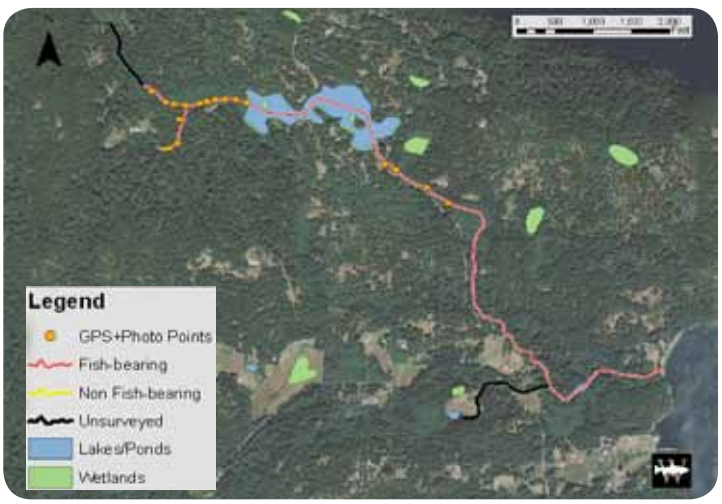
By Jamie Glasgow, Director of Science and Research
Wild Fish Conservancy

Detailed information on habitat and fish use is an essential component of protecting freshwater systems and the shoreline habitats they nourish. Until recently, very little information was available regarding streams and the fish that rely on them in San Juan County. Wild Fish Conservancy (WFC) is performing systematic on-the-ground surveys to map streams and the distribution of fish habitat throughout much of the county.

WFC staff collect data on Island streams to ensure that critical areas receive the protection they warrant.

Critical Areas: Best Available Science

To date, where landowners granted permission to access their property,WFC has collected over 1,500 photographs, GPS points, and notes characterizing the fish and habitats in each studied stream. WFC has documented nine different fish species, including cutthroat and rainbow trout, juvenile coho and chum salmon, and non-native brook trout in the streams of Orcas and San Juan Islands. Preliminary analyses indicate that over twelve miles of streams on Orcas and San Juan Islands were previously undocumented on the official regulatory maps maintained by the Washington Department of Natural Resources. Additional stream surveys on Lopez, Shaw and Waldron Islands are in progress.



WFC watershed map showing the groundtruthed distribution of fish habitat within Eagle Lake Creek on the north east side of Orcas Island. Eagle Lake Creek is one of dozens of watersheds mapped on Orcas and San Juan Islands.

WFC has incorporated data collected during the surveys into an interactive web-based Geographic Information System (GIS) that enables visitors, the general public and public agency staff to tour the watersheds and view detailed information about each watershed. Project partner Kwiáht is further characterizing stream habitat conditions where WFC documented native cutthroat trout populations. WFC will update maps as more data are collected throughout the San Juans, and will submit the project results to San Juan County as best available science to guide the drafting of an effective critical areas ordinance.

Project Partners: Wild Fish Conservancy, Kwiáht and WSU Beachwatchers. Funding is through the WA Salmon Recovery Funding Board. Wild Fish Conservancy is a non-profit dedicated to the recovery and conservation of the region's wild-fish ecosystems. For more information visit www.wildfishconservancy.org

Advocacy — the law in action

By Kyle Loring, Staff Attorney, FRIENDS of the San Juans

Bulkhead Exemptions Abound

Shoreline armoring, from structures like bulkheads, disrupts natural sedimentation for beaches, leads to the destruction of important shoreline vegetation, and often directly buries important fish spawning habitat. Although these hard shoreline structures can ameliorate their owners' anxiety over shoreline erosion, they generally serve only to redirect wave energy to increase erosion of neighboring properties or the beach in front of them.

Even as understanding of the harmful effects of bulkheads improves, we are armoring and re-armoring our shorelines at an increased rate. Last fall, Jessica Jetter, a UW labs student, found that San Juan County's issuance of bulkhead exemptions, typically issued for the construction or repair of bulkheads for residences, had nearly doubled in recent years! County records showed that the County issued 53 bulkhead exemptions from January 2006 to October 2009, or 13.25 per year. This number marked a significant increase over the 239 bulkhead exemptions issued from 1972 to 2005, or slightly more than 7 per year.

This information, along with the results from FRIENDS' 2009 Shoreline Modification Inventory, indicates a pressing need to work with managers to increase shoreline protections and to encourage property owners to adopt alternatives. FRIENDS also continues to remind local decision-makers that although some residential bulkheads may be exempt from the permitting process, they are not exempt from the shoreline protections established by state and local law.

If you, or someone you know, are considering bulkhead construction or repair, we encourage a call to FRIENDS first to explore the possibility of fish friendly soft shoreline alternatives.

Unnecessary, Harmful Dock Proposed on Shaw

Last fall, we reported that the County Hearing Examiner had denied a dock on Shaw Island due to likely impacts to an eelgrass bed and the ability of the applicants' existing mooring buoy and rustic marine railway to support their occasional recreational boating. On May 25, FRIENDS stood with the County to defend that decision in response to the applicants' appeal to the Washington Shorelines Hearings Board. During the three-day hearing, FRIENDS demonstrated the lack of need for the dock and the certain eelgrass impacts, as well as the cumulative impacts of dock proliferation. We have not received a decision as this newsletter goes to press.

Essential Public Facilities Ordinance Challenged

On April 13, 2010, FRIENDS appealed an ordinance that would allow the County to develop public facilities without protecting critical areas or natural resource lands, such as farmland. The Washington Growth Management Act (GMA) states that counties cannot preclude the siting of essential public facilities, such as prisons or other facilities that typically engender substantial public opposition. However, the GMA also mandates that counties protect critical areas, such as wetlands and fish & wildlife conservation areas, and conserve agricultural and forest resource lands. The ordinance could have achieved both of these dictates by requiring the avoidance of impacts to the fullest extent possible and then calling for full mitigation of unavoidable impacts. But the ordinance did not do so, compelling FRIENDS to file an appeal to ensure environmental protection while meeting our community's needs.

Photo: Harrison Long

FRIENDS Updates

Welcome New Board Member - Marta Nielson

Marta says she has been in love with all things outdoors since she was five years old and her father taught her the "proper" way to build a fire. About the same age, he also talked to her about "Spirit being all around me in the natural world." As an adult, her personal priority is to live a life in tune with and respectful of the natural environment. She hopes to be able to put her undergraduate degree in Integrated Studies, MEd in Partnership Education, certification in Non-Profit Management and middle school teaching endorsement in Science and Math to work by helping to further the goals and mission of FRIENDS, an organization she was drawn to upon first arriving on Orcas in 2007.

Clean Stormwater Project

It has been three years since Mike Kaill discovered the Spring Street aquarium die-off and some things have improved. Delicate anemones are now able to survive, and the aquarium supports a large variety of fishes. Yet, in order to survive, these creatures must stay well above the bottom as there is still a lethal mixture of silt and toxins (mostly detergents) coming into Friday Harbor from the storm drains.

Major blatant sources of detergent have been corrected. But there are still serious toxic run-off issues like the slurry under the cars (think of black cookie dough, but not so sweet). Project Clean Stormwater Manager Mike Kaill ran tests on the slurry as well as the run-off in the gutter. Detergent, or speaking more accurately, surfactant, levels were very high.

There is a simple solution to this problem: rain gardens. These are small, vegetated areas, built into the street margin. They use space that would otherwise be asphalt or concrete. The plantings add an attractive element to the street. Most importantly, they filter out silt and grime, and rain gardens' soil microbes and plants break down toxic chemicals. Rain gardens operate naturally cleaning stormwater and delivering it back into the system. FRIENDS supports local efforts to place rain gardens to capture toxic stormwater in San Juan County.

Meds Take Back Program

FRIENDS has partnered with the San Juan Prevention Coalition, the Sheriff's Office, Friday Harbor Drugs, Rays Pharmacy and Lopez Pharmacy on a Medication Take Back Program. Bring your unwanted prescription drugs to Friday Harbor Drugs, Rays Pharmacy or the Lopez Pharmacy the 1st Wednesday of every month from 10:00 am to 2:00 pm. Keeping drugs out of your septic or sewer system keeps our water clean. For more information, contact Cara Gresham of the San Juan Prevention Coalition, at 360-378-9683.

Salt Marsh Restoration

The Neck Point salt marsh on Shaw Island is valuable habitat for juvenile salmon and forage fish. This marsh was impacted from shoreline alteration in the 1960's. The primary goal of the Neck Point Marsh Salmon Habitat Restoration project is to increase prey for outmigrating juvenile salmon and restore connectivity between the marsh and the bay. Project partners will restore tidal channels in the marsh and excavate the outlet of the existing main channel to connect it to the bay at approximately the original tidal elevation. Low-lying areas with drainage channels will be connected and native salt marsh emergent vegetation will be planted on the disturbed areas. *Project Partners: FRIENDS, Dr. Tina Wyllie-Echeverria, the Conservation District, Coastal Geological Services, Neck Point Community. Funding through the WA Salmon Recovery Funding Board.*

Smelt Beach Restoration

Blind Bay on Shaw Island is a priority nearshore region within San Juan County. Surf smelt spawn on the beaches year-round and Pacific herring lay their eggs on eelgrass just below the waters surface. Over time, roads and associated shoreline armoring have resulted in the loss of spawning habitat for surf smelt. This fall, FRIENDS will implement a beach nourishment project at one site along the western shore of Blind Bay. By restoring suitably-sized sands and gravels along roughly 300 feet of public shoreline, surf smelt will have a lot more critical spawning habitat, enhancing overall salmon recovery efforts. *Project Partners: FRIENDS, SJC Public Works & Coastal Geologic Services. Funding through the WA Salmon Recovery Funding Board.*

FRIENDS Conservation Intern Program

Legal Interns

Harrison Long is from Maryland and has family and childhood connections to Henry Island, one of the non-ferry

serviced islands within San Juan County. Harrison has completed his first year of law school at the University of Maryland and has a strong professional and educational graphic design background, including a BA in Visual Art-graphic design (2002). Harrison spent May-July as a legal intern working on the Critical Areas Ordinance and shoreline policy review.

Paul Heberling has completed his first year of law school at Georgetown University and holds a BA in Politics and History from Pomona College (2005). A lifelong outdoorsman, Paul also has professional experience with sustainable gardening and landscaping, as well as public interest advocacy and political campaigning in California and Texas. Paul spent July and August assisting with shoreline protection litigation.

Science Intern

Emily Davis grew up in Portland, Oregon and has spent time in the San Juan Islands as a kayak trip leader at Camp Orkila. Emily graduated from Whitman College with a BA in Biology and Environmental Studies in 2008. Since graduating, Emily has worked on field projects ranging

from fire ecology research, aquatic and upslope restoration projects, native freshwater mussel research and desert tortoise population monitoring. The bulk of her experience has been with a community-based conservation group, the Mid Klamath Watershed Council, in Northern California. Emily will be with FRIENDS July-October. She is working on shoreline habitat restoration, forage fish habitat surveys and eelgrass protection and education projects.

Geographic Information Systems (GIS) Intern

Sally Hawkins has lived in San Juan County since 1984 and has extensive experience in forestry, landscape and residential drafting as well as graphic design. She recently completed a certificate program in Geographic Information Systems. Sally is working on mapping elements of our eelgrass protection/buoy restoration program as well as a spatially explicit identification and prioritization for salmon restoration projects within San Juan County.

2011 Internships Available

Summer Public Interest Law Program

Science Program

Project Clean Stormwater

High School Interns

For more information, call 360.378.2319

San Juan County's Critical Areas Ordinance

Protecting our islands and your property

Photo: Harrison Long

The San Juan County Critical Areas Ordinance is being updated to identify and protect sensitive geological areas and habitats throughout our islands. These changes will ensure the survival of our rich and complex ecosystem while preserving your property rights. No houses, structures or businesses will be removed or eliminated by the new regulations proposed. In most cases, you will be able to use and enjoy your property the same way you do now, forever. For more information, please visit www.sanjuans.org/CriticalAreas.htm or try www.co.san-juan.wa.us/cao

Join Us on Lopez!

FRIENDS Annual Meeting

Saturday, August 28th Odlin Park, Lopez 10:00 am to 3:00 pm

Restoration Site Field Trip, Catered Picnic Lunch & Keynote Address by Jack Giard:

"What's Impacting Salmon in the San Juans? An ecological and social perspective"

For 40 years, Jack Giard has owned Lopez 4-Way Reefnet. In 2009 Jack was given a 2009 Island Good Steward Award as he has shown reverence not only for the salmon that he is catching, but for the greater marine environment as well. He has demonstrated that sometimes the best way of doing things… is the old way of doing things. Jack resides on Lopez and is a US delegate to the Fraser River Panel of The Pacific Salmon Commission. He is a quintessential resource on all things salmon.

To R.S.V.P., Call Jana Marks at 360-378-2319 (lunch $15)

FRIENDS OF THE SAN JUANS

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