

FRIENDS

of the San Juans



Protecting San Juan County Shorelines
Spring 2008

From the Director

The beautiful and biologically rich waters surrounding the San Juans attract a significant number of tourists and new residents every year. Our environment has made San Juan County one of the fastest growing counties in the state. Local capacity to manage growth, including infrastructure, plan and permit review, and code enforcement, has not kept pace with the demands of our growing population. While much scientific research has been conducted along our shorelines; similar attention has not been paid to understanding the effectiveness of regulations or the cumulative impacts of incremental development.

This newsletter is the first in a two part series on “Protecting San Juan County Shorelines.” In this issue we highlight our region’s critical kelp resources, describe key threats to shoreline habitats in San Juan County, and present the results of our shoreline permitting analysis. Our summer issue will address FRIENDS shoreline preservation and restoration efforts.

FRIENDS of the San Juans work hinges on connections linking science, education, law, policy, and citizen action to protect the land, water, sea and livability of the San Juans. Through innovative partnerships, we share information and practices, learning from collective results. I hope that the articles here foster your own connection to FRIENDS work and this place. You can read about our other projects online at sanjuans.org.

Stephanie Buffum Field
Executive Director

Some things are worth protecting...

By including FRIENDS of the San Juans in your estate planning, you can support our vital conservation programs while also achieving your financial objectives. Giving options include naming FRIENDS as a beneficiary in your will, making a bequest, donating real estate or a gift that pays you income for life. Contact FRIENDS to find out more about protecting the San Juan Islands for future generations.

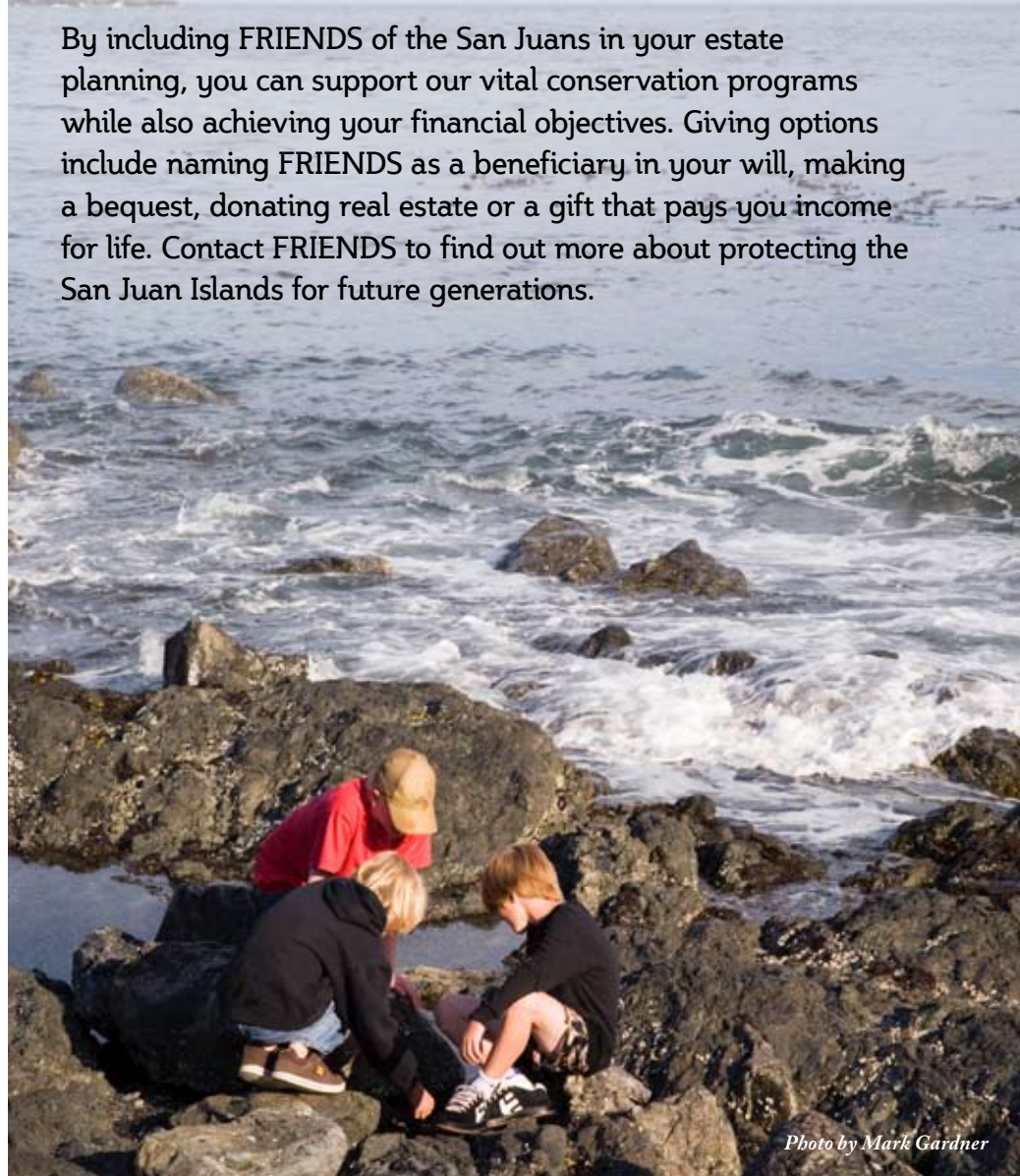


Photo by Mark Gardner

FRIENDS of the San Juans

MISSION: To protect the land, water, sea, and livability of the San Juan Islands through science, education, policy, law and citizen action.

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Members in Action

Who killed Annie the Anemone? FRIENDS Member Investigates the Mystery

By Mike Kaill

During the winter of 2007/08, all of the bottom-living animals in the Friday Harbor Spring Street aquarium died. Fish, barnacles, scallops, even Annie, a huge painted anemone that we've had from day one, many years ago.

What happened? It took detective work, and an EPA approved chemical testing kit to find out. When the kit arrived, I started testing everything in sight: water from the aquarium, from the harbor, from the storm drain. There were some issues, but nothing to suggest why the major die-off occurred.

One day, we were cleaning the settled silt from the bottom of the tank. On a hunch, I tested some of that silty water. It read high on detergents, even though there was nothing indicated in the over-lying water.

Then, a few days later, after a rain, I got a sample, very silty, from the storm drain outfall. I ran some tests on that, and found that it was very high in detergents. In fact, it was toxic enough, I found in a report, to kill

50% to 100% of a sample of rainbow trout in 96 hours.

Why was the silty water so high in detergents? I learned that silt and detergent attract one-another. The silt was taking detergent out of solution, and concentrating it. Does that mean that the harbor floor is covered with toxic silt? I hope not, but I will find out.

What kind of detergents should we be using? The EPA website "Safer Detergents Stewardship Initiative" (SDSI) explains that detergents have harmful chemicals called NPEs*. And they are not very biodegradable, never mind what the label on the "Green" cleaner says. They list some "partners" that are voluntarily doing things a better way: Clorox Green Works and Earth Choice.

Just before this publication went to the press, I took more samples. Results from the storm drain registered at 10.5ppm, and the bottom mud (diluted to one five-hundredth) was at 0.85ppm; 1.6ppm is toxic.



Anemones are simple creatures; their tissues do not age and malfunction like humans. Without misfortune, an anemone can pretty much live forever. Photo by Terry Whalen.

We also got a new anemone, Andrea. When we put her in the tank, she hit the bottom and turned on her side. She rolled around, found vertical, and then climbed up a rock, where she remains.

What can you do? For starters, be sure to put all detergent wash water into the sewer or septic line. You can also contact the Town of Friday Harbor and the San Juan County Council to ask about improving stormwater management.

Most importantly, we all need to think about what is coming out of our storm drain lines and how it may be impacting our waters.

**nonylphenol ethoxylate surfactants*

Mike Kaill samples Friday Harbor storm water (left), Sludge on the marina water (middle), Mike testing the tank (right). Photos by Sandy Harold.



Kelp Habitat: Rainforests of the Sea

Kelp species abound in the clear, cold waters of San Juan County. The most visible, bull kelp, is one of the fastest growing organisms on earth; in Washington State, growth rates of 5.5 inches per day have been documented!



Photo courtesy of Soundwatch/The Whale Museum.

The term kelp refers to all brown algae that are attached to the seafloor (*order Laminariales*). The most well-known local species, bull kelp (*Nereocystis luetkeana*), grows in shallow subtidal waters to depths of over 60 feet, providing a protective canopy for hundreds of species of fish, invertebrates and marine mammals that feed, live, hunt and migrate below. There are also numerous species of understory kelps that grow along rocky bottoms from the intertidal to depths of 45 feet, providing additional habitat complexity to the kelp forest.

The single species of canopy forming kelp in the San Juans is bull kelp, while primary understory kelp species include:

ribbed kelp (*Costaria costata*), fringe-sieved kelp (*Agarum fimbriatum*), split kelp (*Laminaria bongardiana*), and sugar kelp (*Laminaria complanata*).

As primary producers, kelp plants support complex food webs essential to forage fish, salmon, seals and whales. Rafts of kelp help reduce beach erosion and provide protected feeding areas for mammals, birds and fish. Kelp habitat provides key ecosystem services such as feeding, refuge and migratory habitat to salmon, forage fish and rockfish. Scientists at the Friday Harbor Marine Labs and the Washington Department of Fish and Wildlife have

documented key associations between kelp beds and many rockfish and salmon species. Research results have shown that young copper and quillback rockfish are strongly associated with understory kelps in San Juan County while adult copper rockfish utilize the 'forest structure' of kelps as they migrate down the plants to the reef habitat below.

Kelps are sensitive to changes in water quality. As the life history of kelp is dependant on tiny spores, certain environmental conditions such as clear water are a requirement. Sediment inputs into marine waters can reduce light and/or smother the kelp spores after they have settled. Sedimentation can also reduce the availability of rocky substrate for kelps to attach onto. Research has shown that kelp plants are also very sensitive to petroleum products. Stormwater runoff carrying sediment, petroleum and other pollutants from upland and shoreline development is the primary water quality threat to kelp in the San Juan Islands.

Boating activities are another local source of impacts to kelp habitat. Kelp plants can be physically damaged by boat propellers, fishing gear, anchor and buoy chains, petroleum pollution, docks, and mooring buoys. Other threats to the health of kelp habitat include invasive species (Sargassum in this area), oceanic and climate changes, and direct harvest.

To improve the connection between kelp science and the management of kelp in San Juan County, FRIENDS of the San Juans collaborated with agency scientists to create the first comprehensive map of canopy floating kelp (bull kelp) for San Juan County. *See page 5.*



Sea Otters and Kelp

The reintroduction and expansion of sea otter populations along the west coast are bringing change to kelp environments as the otters feed on urchins, a major grazer of kelp. While sea otter populations have not yet returned to San Juan County, individuals have been spotted locally and populations on the outer coast of Washington and British Columbia appear to be expanding up the Strait of Juan de Fuca.

During the last few summers, the Whale Museum's Soundwatch Program has documented multiple sightings of sea otter groups off the west side of San Juan Island. Return of this captivating creature, that was once locally extinct, underscores the importance of protecting San Juan County's kelp habitat.

Photo courtesy of Soundwatch/The Whale Museum.



*Whales are often seen foraging and playing in kelp forests.
Photo by Jeanne Hyde; taken from shore.*

What can you do to protect kelp?

You can help protect kelp by reducing soil erosion and the use of household, lawn and garden chemicals. Well vegetated property provides important water filtration for the marine environment. Be sure your septic system is in good working order, and that stormwater runoff is being managed on your site. If you are a boater, steer clear of kelp beds when underway, avoid locating moorage structures such as docks and buoys in kelp habitat, and make sure your boat is operating as cleanly as possible.

New Bull Kelp Maps for San Juan County

In 2006, FRIENDS of the San Juans partnered with the Washington Department of Natural Resources (WADNR) to conduct a county-wide assessment of bull kelp distribution. Despite the significance of kelp habitat to the marine ecosystem, and the fact that over one third of canopy kelp habitat of the inland waters of Washington State is located in San Juan County, a detailed assessment of bull kelp bed locations had never been completed.

Bull kelp distribution was mapped using high resolution, infra-red, digital aerial photographs taken in late July of 2006. Flights were made during low tide, on a clear day, to provide the best possible data set for analysis. Experts from the Washington Department of Transportation completed the flights and collected the air photos.

On the same day as the flights and photos, field data was also collected by scientists at WADNR and the University of Washington Friday Harbor Labs. Data collected in the field served two primary purposes. First, to provide detailed data on the location of bull kelp and other types of marine algae to aid the accuracy of aerial photo interpretation, and second, to provide information on the range of variability in kelp bed size over the time of the flight period as a result of tidal currents. Some flight lines were also flown and photographed multiple times to provide additional information on the effects of tidal conditions on mapped bed size.

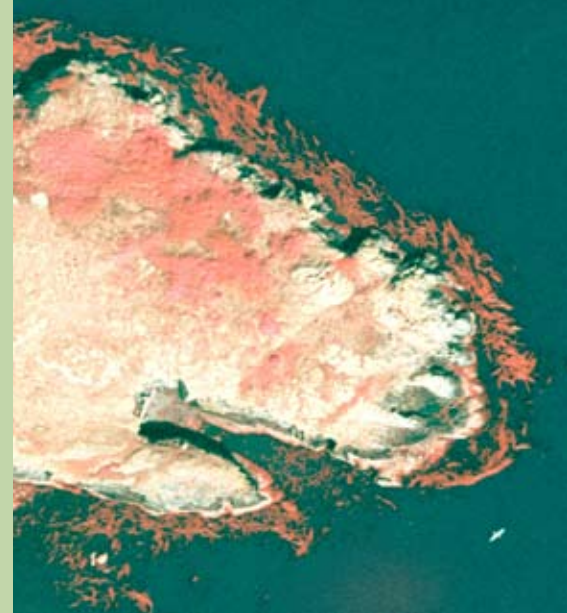
Aerial photos were then analyzed by WADNR and initial bull kelp distribution maps were digitized in

the winter of 2006/07. In late July of 2007, FRIENDS conducted follow-up field surveys in areas where poor photo quality (as a result of factors such as glare, chop, and shade) limited the confidence of photo interpretation. The overall variability in bed size due to currents was found to be quite low for the large size of the assessment area. At less than 5% variability in overall bed size between photo interpretation and field surveys, the methods utilized provided highly accurate mapping results useful for broad scale planning and management.

Through this project, FRIENDS found that approximately 180 linear miles of shorelines in the San Juans were found to have bull kelp along them. Project results include high resolution, digital maps of the location of bull kelp beds in San Juan County. San Juan County bull kelp mapping results were distributed to over 125 local and regional coastal scientists, land managers and planners.

Project results are being applied to ongoing marine and land use planning processes in San Juan County including the Salmon Recovery Plan, the Marine Stewardship Area Plan, the Critical Areas Ordinance Update and the San Juan Initiative. FRIENDS is also working with agency experts to improve the application of kelp science to policy. In addition, FRIENDS added a kelp habitat section to our popular Living with the Shoreline: Stewardship Guide for Shoreline Landowners which were mailed to all shoreline property owners in 2007 and is also available by request from FRIENDS.

The bull kelp distribution maps and the high resolution infra-red



Infra-red aerial photos indicate the location of bull kelp off of Colville Island, south Lopez. For scale, note kayak in lower right corner.



Using the aerial photos and field data, aquatic habitat experts from WADNR developed digital maps of bull kelp beds (indicated in blue).

photographs used to generate them are public resources, available upon request from FRIENDS of the San Juans or the Washington Department of Natural Resources. Because the photos include all of San Juan County, they can be used to identify and map other habitat types such as upland vegetation and wetlands. Funding for this project was provided by the Washington State Salmon Recovery Funding Board.

Threats to Marine Resources

Puget Sound's marine waters are home to more than 220 species of fish, 26 different kinds of mammals, 100 species of seabirds and thousands of invertebrate species. With over 400 miles of shoreline located at the confluence of Puget Sound, Georgia Basin and the Strait of Juan de Fuca, nearshore habitats of the San Juans play a critical role in the regional marine ecosystem and food webs.

San Juan County's shorelines support forage fish spawning beaches, extensive eelgrass meadows and kelp beds. These shores offer feeding, refuge and migration corridors for endangered salmon, marbled murrelet and orca species. Unfortunately, these highly productive habitats are located along our shorelines and are vulnerable to impacts from development. Protection of high quality nearshore habitats has been identified as the most important salmon recovery strategy for the San Juan Archipelago.

Development Can Threaten Habitat

As the majority of shoreline development activity in San Juan County occurs through individual alterations, the



Shoreline armoring, such as this large bulkhead, directly buries habitat important for forage fish spawning. It also impacts shoreline vegetation and disrupts the natural sediment processes that build and maintain local beaches. Alternatives to hard structures can offer effective protection for property and marine habitat in many cases.

Juvenile salmon utilize eelgrass and kelp habitats to locate food and avoid predators. Young salmon eat forage fish and insects from shoreline vegetation.

Photo courtesy of Dr. Peter Kiffney, NOAA.



cumulative impacts may only become evident over time. Threats to shoreline habitats are largely managed through the San Juan County permit review process, under the Shoreline Master Program and Critical Areas Ordinance sections, as well as through the land management decisions of individual property owners and developers. Avoiding or reducing impacts to local shorelines starts with an understanding of the primary threats to priority habitats. An overview of key shoreline habitat values and threats is provided below.

Juvenile Salmon

Recent research has documented multiple species of outmigrating juvenile salmonids in the shallow waters of the San Juans including Chinook, coho, pink, chum and steelhead. Juvenile salmon utilize nearshore marine and estuarine habitats for feeding, refuge and migrating and have been documented using local waters from February through September. Primary threats to juvenile salmon habitat include over and in-water structures such as



Over 4 miles of local roads are located very close to documented forage fish spawning beaches. Roads disconnect marine and freshwater habitats, harden shorelines, and increase pollution to marine waters. FRIENDS is working with San Juan County and other partners to minimize road impacts and enhance forage fish habitat at multiple sites.

Photo courtesy of Coastal Geologic Services.



Pacific herring lay their eggs on eelgrass in early spring. There are six known herring spawning grounds located in the San Juans: Westcott, Blind, Eastsound, West Sound Shoal and Mud/Hunter Bays.

Photo courtesy of WDFW.

docks and jetties which force the small fish into deeper waters where predation rates are much higher; impacts to forage fish which provide a key food source; and reductions in shoreline vegetation which also provide food (terrestrial insects) essential to the diet of juvenile salmon. Salmon and trout are also highly susceptible to water quality impacts, including leaching from creosote structures and sediments and contaminants carried in stormwater runoff.

Forage Fish Spawning Beaches

Surf smelt and pacific sand lance rely on the upper portions of over 60 sand/gravel beaches in San Juan County to deposit and incubate eggs. These key forage fish species play a critical role in local and regional food webs as the prey base for over 140 marine organisms. Primary threats to forage fish spawning beaches include shoreline structures and the removal of trees and shrubs along shorelines. Beach structures such as boat ramps, jetties, bulkheads and armoring associated with other accessory structures such

as stairs, docks or stormwater outfalls negatively impact forage fish spawning beaches. Damage is caused by directly burying spawning habitat and by altering natural sediment processes that create and maintain suitable spawning substrate. Sediment that would be feeding beaches is trapped behind the structure, the natural movement of sand through the system is interrupted and erosion below and/or along sides of the structure is increased due to wave reflection, end erosion and beach scour.

Removal of shoreline vegetation impacts forage fish spawning beaches by reducing shade, altering beach microclimate and reducing terrestrial food supply. Vegetation removal can also lead to increased erosion, reducing water quality conditions of runoff. A recent NOAA study in central Puget Sound found surf smelt egg survival was reduced by 50% at shoreline sites where trees had been removed and armoring was present.

Eelgrass Meadows

Nearshore, shallow-water eelgrass habitats provide food and shelter for over 70 species of fish and innumerable invertebrates. The native eelgrass (*Zostera marina*) is considered a “keystone” species in the Pacific Northwest, providing critical habitat for hundreds of important marine species, including juvenile salmon, Pacific herring, black brant, marine foraging river otters and Dungeness crab. Roughly 140 linear miles of San Juan County’s shorelines support eelgrass meadows. A flowering plant, eelgrass is susceptible to changes in water quality conditions, especially light levels.



Docks impact the marine environment by blocking the sunlight that eelgrass, kelp and other light dependent species require to grow. Docks alter shallow water fish movement, sending small fish into deeper waters, where risk of predation is higher. Docks can also be polluters, acting as sources of creosote and styrofoam.

San Juan Island photo courtesy of the Department of Ecology.



Inappropriately located anchoring and mooring buoys directly destroys eelgrass plants and habitat. To avoid impacting eelgrass, locate boating facilities (buoys, boat ramps, barge landings, docks, marinas, and anchoring areas) away from eelgrass. Boaters can avoid damaging this critical species by anchoring in water deeper than 30 feet.

Primary development threats to eelgrass in the San Juans include overwater structures which block the sunlight eelgrass requires to grow; dredging, prop scour and chain-drag associated with boating facilities and activities including boat ramps, barge landings and buoys; and altered water quality conditions from increased upland development including sedimentation, stormwater runoff and nutrient loading from septs, animal waste and fertilizers, etc.

Kelp Beds

There are multiple species of kelp in the San Juans, including the well known, canopy forming bull kelp, as well as lesser seen but as important understory kelps. Understory and canopy kelps provide key ecosystem services including: high primary productivity, habitat structure and wave energy influences. As primary producers, kelps support complex food webs essential to the marine ecosystem. In addition, kelps provide underwater habitat structure used for refuge and feeding by hundreds of species of invertebrates, fish and marine mammals. Approximately 40% of San Juan County's shoreline has bull kelp offshore, while understory kelps are estimated to occur along 60% of the County's shorelines. Like eelgrass, kelps are sensitive to changes in water quality and impacts from boating activities, especially petroleum products and increased nutrients.

Reducing Cumulative Impacts

In the County-wide Marine Stewardship Area Plan adopted by the County Council in 2007, shoreline modification is identified as the third highest threat to the health of the



Stormwater infrastructure and runoff causes beach erosion and carries pollutants including sediment, toxins, and nutrients to the marine environment. Managing upland vegetation and reducing use of chemicals helps keep water clean and healthy for humans and marine wildlife.

Photo courtesy of San Juan County Pabic Works.

Native shellfish provide ecological, economic, cultural, and recreational benefits. Shellfish are very sensitive to changes in water quality and sediment conditions.

Photo courtesy of Nick and Sarah Jones.



marine ecosystem. Because more shoreline habitat is lost from the cumulative impacts of many smaller projects than from major construction projects, we all have a role to play in improving protection of shoreline habitat in San Juan County. FRIENDS of the San Juans helps protect local shorelines in multiple ways, including: participation in county-wide processes such as the Critical Areas Ordinance update and the Marine Resources Committee; working with agency scientists to complete habitat assessments; providing policy and scientific information at the project review stage; implementing restoration at priority sites; and offering education programs to a wide range of audiences.

We encourage you to join us in these important marine protection and recovery efforts! For more information on protecting priority shoreline habitats near you, contact FRIENDS or visit our website www.sanjuans.org.



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.

Understanding Shoreline Development

An analysis of San Juan County shoreline permit activity since 1972

While much scientific research has been conducted along our shorelines; similar attention has not been paid to understanding the effectiveness of regulations or the cumulative impacts of incremental development.

With updates to the Critical Areas Ordinance occurring now and the Shoreline Master Program update on the horizon, FRIENDS of the San Juans recently completed an analysis of permit activity to help determine what policy or administrative changes, if any, would help San Juan County ensure protection of its important shoreline habitats.

In order to analyze major shoreline permit activity, FRIENDS first created a searchable and spatially explicit database of all shoreline permits from 1972-2005 based on the county's two permit databases (old: 1972-1999 and new: 2000-2005). Since the time San Juan County started tracking permit activity, there were a total of 2,607 permits on file for the following shoreline actions: aquaculture, barge, beach access, boat house, boat ramp, bulkhead, clearing and grading, dock, guesthouse, logging, marine railway, mooring buoy, setback, shoreline, stormwater and transient rentals.

Between 1972 and 1999, 1,642 shoreline activity permits were processed, averaging 59 permits per year. From 2000-2005, 927 permits were processed averaging 155 permits per year. Of all

the shoreline permits in the county databases, 43% are recorded as exemptions, 26% as substantial development permits, and 14% are investigations of code violations.

In addition to an increase in shoreline permit activity there is also a noticeable increase in shoreline residential building permits after 1999. From 1992 to 1999 (the earliest time period for reliable building permit numbers in the county database), there were a total of 816 permits for residential building activity on shoreline parcels, averaging 102 permits per year. From 2000-2005, 930 permits were issued for residential building activities on shoreline parcels, averaging 155 permits per year.

Are our protection policies working?

In 1993, San Juan County adopted environmentally sensitive areas policies with specific provisions to protect known forage fish spawning beaches and eelgrass habitat from the impacts of modifications such as docks and bulkheads. To determine if these shoreline protection policies are working, FRIENDS' analysis took a closer look at permit activity near forage fish spawning habitats and eelgrass before policy adoption (1973-1992) and after (1993-2005).

Bulkheads and Documented Forage Fish Spawning Beaches:

While potential or suitable forage fish spawning habitat occurs at 80 miles of sand/gravel beaches, scientists have only found forage fish eggs on 12.6 miles of San Juan County's shorelines. Current county code only protects documented forage fish spawning habitat, not merely suitable habitats. From 1972-1992, Bulkhead permit activity on parcels with documented forage fish spawning included 9 permits, an annual rate of 0.42 per year. From 1993-2005, after adoption of increased protection of spawning sites, there were 11 permits for bulkhead permit activity on parcels with documented forage fish spawning, an annual rate of 0.85 per year. The percentage of bulkhead permit activity on parcels with forage fish spawn declined slightly after the adoption of environmentally sensitive areas policies, from 11% (1972- 1992) to 9% (1993-2005).

Docks and Eelgrass:

Approximately 140 linear miles of San Juan County shorelines have eelgrass meadows. From 1972 to 1992, 107 permits were



approved for docks on shoreline parcels with eelgrass present, a rate of 5 per year. After the adoption of increased protection for eelgrass, dock permit activity on shoreline parcels with eelgrass actually increased. From 1993-2005 there were 133 permits approved, a rate of 10 per year. The percentage of docks permitted on parcels with eelgrass remained essentially unchanged after the adoption of environmentally sensitive areas policies, from 32% (1972-1992) to 33% (1993-2005). It appears that higher development pressures and lack of clarity in current regulations are overwhelming the intent of protection policies.

Conclusions

FRIENDS of the San Juans' Shoreline Permit Analysis for San Juan County, 1972-2005 provides an objective basis for an informed discussion of future development, cumulative impacts and shoreline protection. Increasingly high permit activity levels, diverse project types and the broad geographic distribution of shoreline development actions raise serious concerns about the incremental and cumulative impacts of shoreline development in the San Juans. A cumulative impact analysis of shoreline development is needed to inform future management decisions. In addition, for the two habitat types we investigated, eelgrass and forage fish spawning beaches, results indicate that current protection of 'marine habitat areas' in the Environmentally Sensitive Areas section of San Juan County Code is not effective. Changes in policy or the implementation of regulations is needed to improve protection of these critical habitats.

FRIENDS widely distributed project findings and results to San Juan County planners and managers. The results are informing the current Critical Areas Ordinance update and the San Juan Initiative project. For a copy of the report, contact FRIENDS.

Funding support for the project was provided by The Russell Family Foundation, The Northwest Fund for the Environment and the Washington Department of Ecology. This year, the Bullitt Foundation is supporting additional analysis of eelgrass and kelp protection policies.

Critical Areas Ordinance Update

The Critical Areas Ordinance (CAO) update offers an opportunity to guide how and where we develop. The Growth Management Act (GMA) defines five areas which must be addressed in the CAO update: Geologically Hazardous Areas, Frequently Flooded Areas, Critical Aquifer Recharge Areas, Wetlands, and Fish and Wildlife Habitat Conservation Areas. Periodic review and updates to the CAO are required by the GMA. These updates provide an opportunity for local communities to evaluate existing programs and policies and ensure that the best available scientific information is included in our regulations.

The CAO update is about protecting aquifers and the groundwater that people depend on, protecting fish and wildlife habitat and the species they support, and preventing the loss of life and property by avoiding development in hazardous areas.

Beginning in August 2007, a CAO Policy Committee began meeting to examine best available science, consider the implications of proposed policies, and draft ordinance language. Once the Policy Committee completes their work in each of the five areas, their recommendations will be forwarded to the Planning Commission for review and public hearings at both the Planning Commission and County Council level before the update is enacted into code.

FRIENDS Executive Director, Stephanie Buffum Field serves on the San Juan County Critical Areas Ordinance Policy Committee. The Committee has made progress with the critical aquifer recharge section of the ordinance and is beginning to discuss the Fish & Wildlife component. All meetings are open to the public and held one to two times per month. For more information, contact San Juan County Planner, Shireene Hale, or visit the county's website at www.sanjuanoco.com/cdp/.

FRIENDS Defends Our Shorelines...

FRIENDS public interest legal program actively monitors land use activity for potential threats to our environment. Below are a few examples of our recent efforts to achieve both compliance with existing regulations and improved legal protections. Our public interest legal program depends on the generosity of member contributions.

Preserving Eelgrass and Upholding Local Regulations

On February 26, 2008, FRIENDS filed a Petition for Review with the Shorelines Hearings Board to challenge a permit for a single-user dock over eelgrass on Pearl Island. The San Juan County Hearing Examiner had initially denied the permit, but the County agreed to issue the permit as part of a settlement after the applicant appealed the denial. In return, the applicant agreed to remove an unpermitted and unused mooring buoy located at the south end of Henry Island.

FRIENDS opposes the dock because it violates the Shoreline Management Act and the County's Shoreline Master Program. The dock is inappropriate there because it would destroy existing eelgrass; it would exacerbate the porcupine effect of docks along county shorelines; it was a component of a speculative development; the applicant already has moorage and access to the property; the applicant made only a meager effort to obtain other moorage; and the removal of an unpermitted mooring buoy is not adequate mitigation for new impacts. The Shorelines Hearings Board will hear the appeal on July 1 and 2, 2008.

Protecting Fisherman Bay

In October, 2007, FRIENDS of the San Juans and many active Lopez community members testified against a shoreline variance for a house on an unbuildable lot along the western shore of Fisherman Bay before the Hearing Examiner. The narrow, 15,987 sq. ft. forested lot is located between the road and the shoreline where county setbacks overlap and thus prevent the building of a house. In addition, the shoreline is unstable and, if developed, would require armoring in the future. In November, the Hearing Examiner denied the variance request. The applicants then appealed this decision to the Shorelines Hearings Board.

On March 18 and 19, 2008, the County defended the Hearing Examiner's denial of the variance request in front of the Shorelines Hearings Board. During the hearing, the Board heard testimony from the applicant that they did not know before the purchase that the property was unbuildable. One of the applicants, a self-described venture capitalist who regularly participates in commercial real estate transactions, testified that he did not read the cover page of his contract, which informed him that the property was not buildable. The applicants also testified that they saw the property prior to purchase only as they drove by it during a visit to Lopez Island in search of commercial property. The Shorelines Hearings Board should issue a decision by the end of May.

Advocating Against Building in Shoreline Setbacks

On March 4, 2008, FRIENDS submitted comments to the County to urge denial of two requested variances for a narrow parcel on Westcott Bay. The applicants, who own houses on other nearby properties, had requested one variance to reduce the standard 50 to 100 foot setback to 25 feet for a home and another variance for a retaining wall and fill along the shoreline. The applicants claimed that the variances were necessary to provide them reasonable use of the property. Two years earlier, the Hearing Examiner denied the applicants a dock permit for this same property because there was no home on it.

FRIENDS urged the Hearing Examiner to deny the variance requests for the following reasons: the application was incomplete; the application did not meet the strict variance criteria; the County Code prohibits landfill for the purpose of creating additional land area; and the application did not properly analyze potential impacts to surf smelt spawning sites on the property or Pacific herring spawning areas in the Westcott Bay region. On April 1, 2008, without addressing any potential impacts to these sensitive areas, the Hearing Examiner approved the 25-foot variance. The request for the rock retaining wall and fill was sent back to the planning department to be addressed as a request for an exemption.

Planning for Desalination Plants

On March 18, 2008, FRIENDS submitted comments to the San Juan County Hearing Examiner in response to an application to construct two reverse osmosis units to supply water to sixteen fractional share vacation units, five upland residential parcels, and expanded moorage at Snug Harbor Resort. The Resort requested approval of these units to supplement its current Group A well water, which is approved to serve 20 of the proposed 21+ connections. However, the application does not fully evaluate potential impacts to the environmentally-sensitive habitats and organisms in the area,

including eelgrass, surf smelt spawning beaches, Pacific herring spawning grounds, and nesting bald eagles.

As water levels decline along the shorelines of the San Juans, those shorelines will see increased pressure to develop alternative water sources. In the absence of impact analyses and a county-wide planning effort for desalination plants, individual proposals will continue to have the potential to adversely impact our shorelines, particularly in shallow embayments such as Mitchell Bay. Consequently, FRIENDS requested denial of the Snug Harbor application until the applicant provided sufficient information to evaluate the potential cumulative impacts of the proposal. Unfortunately for the health of our shorelines, on April 1, 2008 the Hearing Examiner approved the permit for this facility without such information.

Protecting the Beauty of Scenic Byways

On March 13, 2008, FRIENDS submitted comments to the County in opposition to the construction of a 200-foot-tall cable car tram and related structures in a scenic view corridor along San Juan Channel. The proposed development would interrupt 1.3 miles of existing natural shoreline that currently remains unbroken by docks or piers. Recreational boaters and ferry riders enjoy this scenic view on the eastern shores of San Juan Island.

FRIENDS urged denial of the proposal as contrary to County Code and Washington's Shoreline Management Act. The 200-foot high cable-car tram and associated structures would create an unprecedented aesthetic impact to the county's shorelines, and the cumulative impacts of other similar proposals would be substantial. In addition, the applicant did not show that this structure is necessary to access their property on a ferry-served island. The Hearing Examiner will review the application this May.

Complete text of all of FRIENDS recent comment letters can be found on our home page at www.sanjuans.org.



NEWS

New Staff

FRIENDS of the San Juans is excited to welcome two new staff to our conservation team: Staff Attorney, Kyle Loring and Membership Director, Scott Boye. Both are native Washingtonians!

STAFF ATTORNEY

Last December, Kyle joined us as our full time staff attorney from the Seattle office of K&L Gates (formerly Preston Gates Ellis LLP), where he spent the past three years practicing in the Environmental, Land Use, and



Natural Resources group. Kyle earned his law degree from Boston College Law School, where he also participated actively outside the classroom, through service on the BC Law Review, as president of the Environmental Law Society, as a legal intern at BC's Elder Law Clinic, and teaching environmental law to undergraduate students. After law school, Kyle worked as a legal fellow for Alternatives for Community and Environment, a not-for-profit environmental justice organization in Boston. In addition to

his work with FRIENDS, Kyle serves as a board member for Transportation Choices Coalition, a state-wide mobility advocacy organization. Kyle is a native Washingtonian who is looking forward to returning to island living; he grew up on Anderson Island in the south Puget Sound. Kyle brings many years of land use experience and knowledge of the region to our conservation team.

MEMBERSHIP DIRECTOR

Scott Boye is a fourth generation Washingtonian who has lived in the San Juans for the past dozen years. But his connections go much deeper. While growing up in the Seattle area, childhood summers and vacations



were spent on Lopez at Henderson Camps/Norwester. With a degree in Architecture from the University of Washington, Scott's career specialized in the export of building materials and home packages to Asia. Working with both US and Japanese governmental agencies, Scott was instrumental in gaining governmental certification of western style construction techniques and materials in Japan. After 'retiring' to San Juan Island in 1996, Scott built his own house, performing every aspect of the design and construction. Scott also became involved in a number of community activities, including coaching the local High School sailing team. In addition to his duties at FRIENDS of the San

Juans, Scott serves on the boards of The San Juan Sailing Foundation and ISSA, the national governing body of high school sailing. His passion for sailing finds him racing on sailboats locally and nationally most weekends. Scott's a natural tactician on the boat and off. His attention to detail and his customer service is an excellent addition to our staff.

New Board Members

With five Board Members retiring due to term limits, FRIENDS is pleased to introduce our two newest additions: Chuck Armstrong and Bill Watson.

CHUCK ARMSTRONG, Treasurer

Chuck Armstrong was born in Portland, Oregon and attended Oregon State University. He served in the US Navy from 1967-1972, mostly in the Pacific and Asia and taught at the Naval Academy for few years. He then served



in the Naval Reserves from 1973 to 1997. Chuck began his banking career in 1972 with Oregon Bank. For the next 25 years he worked in both Oregon and Hawaii, culminating with four years as the President of the Oregon First Bank, four years as the President of HonFed Bank in Honolulu, and five

years as the Chairman/CEO of Bank of America in Oregon. From 1997 to 2005 Chuck lived on Orcas Island; during that time he was President of the Orcas Island Community Foundation and on the Board of FRIENDS of the San Juans. Chuck now lives on San Juan Island and is excited to serve as Treasurer for the FRIENDS Board of Directors.

BILL WATSON, Secretary

Bill Watson was born in Pittsburgh, Pennsylvania and graduated from Ohio State University in 1979 with a BS in computer science. Bill began his software career in 1977 at Chemical



Abstracts while finishing school and moved to silicon valley California in 1979. In 1988, Bill moved his family to Redmond Washington and worked for several companies in roles from software engineer, program manager, business unit manager, and Vice President of engineering. Bill has been visiting the San Juan Islands since 1988 with his family, enjoying camping, hiking and sea kayaking. Before moving to Friday Harbor full time in 2006, he owned property on San Juan Island. Bill is the Program Coordinator for the SJC Economic Development Council. Bill serves on the board of the Seattle Meditation Center, the San Juan Agricultural Guild, Leadership San Juans, and is the Secretary for the FRIENDS of the San Juans.

Many Thanks...



Three of FRIENDS outgoing Board Members can be seen in this picture from an August Board field trip to Lopez Island. From left, standing: Patti Pirnack-Hamilton, John Marx, San Olson, Lynn Babrych, Stephanie Buffum Field, Irmgard Conley; kneeling: Farouk Seif and Janet Alderton.

FRIENDS of the San Juans wishes to acknowledge and thank our outgoing board members Irmgard Conley, Roger Collier, Jon Christoffersen, John Marx, and Patti Pirnack-Hamilton. All of these incredibly generous islanders dedicated countless hours to help FRIENDS achieve our mission and goals of protecting and preserving the San Juan Islands. We appreciate their ongoing participation as ex-officio board members.

If you want to learn more about volunteering on the board of directors, please feel free to contact one of the Board Members listed on page 1 or our Executive Director at 378-2319.

THANK YOU ALL FOR YOUR SUPPORT!

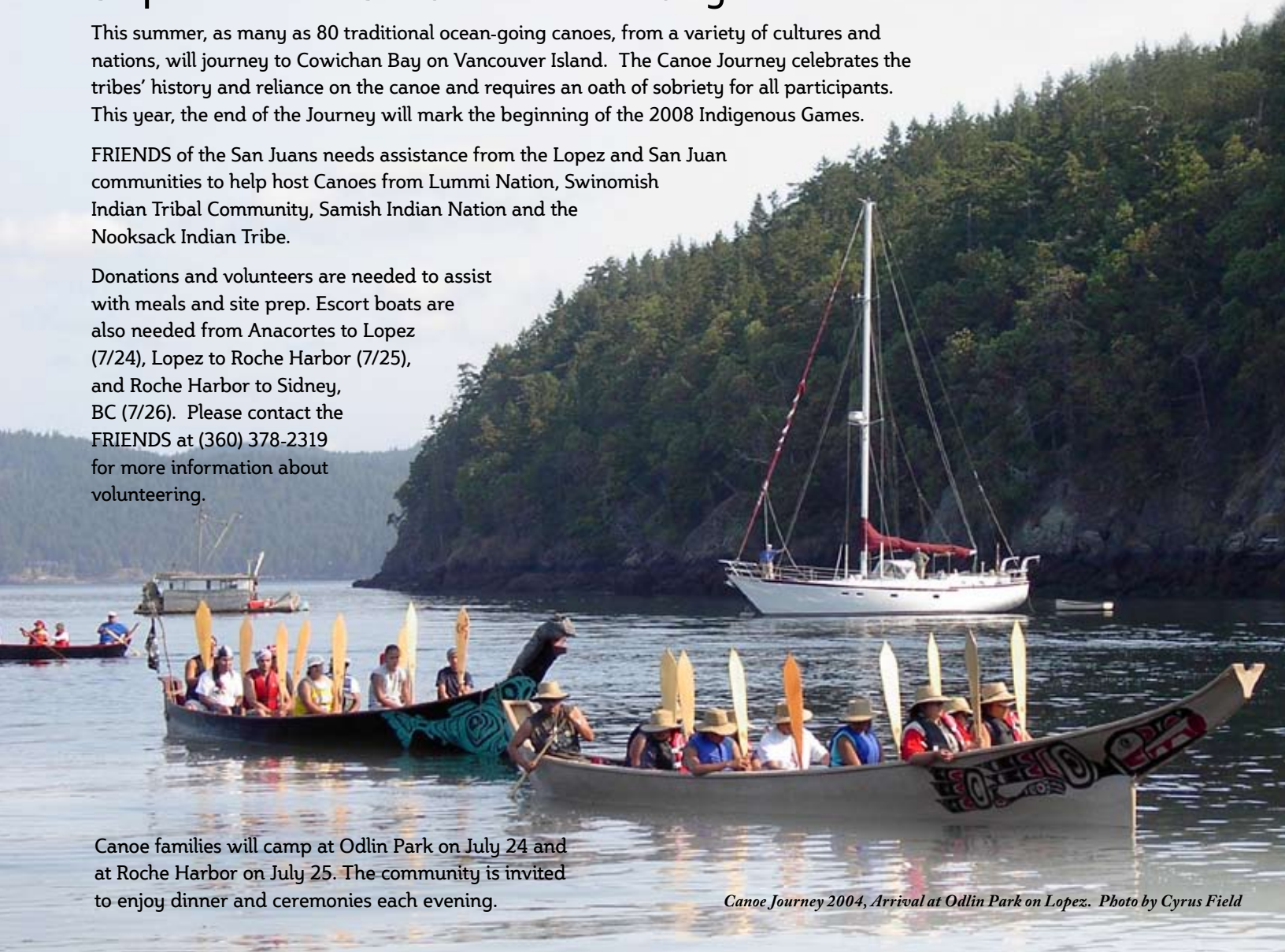
Canoe Journey 2008

Stop over in the San Juan Islands - July 24 & 25

This summer, as many as 80 traditional ocean-going canoes, from a variety of cultures and nations, will journey to Cowichan Bay on Vancouver Island. The Canoe Journey celebrates the tribes' history and reliance on the canoe and requires an oath of sobriety for all participants. This year, the end of the Journey will mark the beginning of the 2008 Indigenous Games.

FRIENDS of the San Juans needs assistance from the Lopez and San Juan communities to help host Canoes from Lummi Nation, Swinomish Indian Tribal Community, Samish Indian Nation and the Nooksack Indian Tribe.

Donations and volunteers are needed to assist with meals and site prep. Escort boats are also needed from Anacortes to Lopez (7/24), Lopez to Roche Harbor (7/25), and Roche Harbor to Sidney, BC (7/26). Please contact the FRIENDS at (360) 378-2319 for more information about volunteering.



Canoe families will camp at Odlin Park on July 24 and at Roche Harbor on July 25. The community is invited to enjoy dinner and ceremonies each evening.

Canoe Journey 2004, Arrival at Odlin Park on Lopez. Photo by Cyrus Field



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