Stewardship Connections

A helpful guide to finding information, activities, and volunteer opportunities that increase your understanding of our Islands and help keep them healthy.

Technical Resources

San Juan Islands Conservation District, www.sanjuanislandscd. org, 378-6621, info2007@ sanjuanislandscd.org, 540 Guard Street Suites 130 & 150, Friday

SJC Health & Community Services, www.sanjuanco.com/health, 378-4474, 145 Rhone Street, Friday Harbor

SIC Noxious Weed Board, www.nwcb.wa.gov/links.htm (select San Juan), 378-3499, 60 Henry Road, Eastsound

SJC Community Development & **Planning**, www.sanjuanco.com/ cdp, 378-2354, 135 Rhone Street, Friday Harbor

Town of Friday Harbor,

www.fridayharbor.org (select Whom To Call, Water Conservation Program), 378-2810, 60 Second Street

WSU Extension Master Gardeners, www.sanjuan.wsu.edu, 378-4414, kbayas@wsu.edu, 221 Weber Way Suite LL, Friday Harbor

Find Local Sustainable Businesses

Lopez Chamber of Commerce, www.lopezisland.com, 468-4664, lopezchamber@lopezisland.com #6 Old Post Road

Orcas Chamber of Commerce, www.orcasislandchamber.com, 376-2273, lance@orcasisland chamber.com, 221 A Street, Eastsound

San Juan Island Chamber of Commerce, www.sanjuanisland. org, 378-5240, chamber@ sanjuanisland.org, 135 Spring Street, Friday Harbor

San Juan Islands Visitors Bureau, www.visitsanjuans.com, 378-3277 x1, info@visitsanjuans.com, 640 Mullis Street #210, Friday Harbor

Certified Clean Marinas www.cleanmarinawashington.org

Deer Harbor Marina, www.bellportgroup.com, 376-3037, VHF Channel 78

Port of Friday Harbor, www.portfridayharbor.org, 378-2688, VHF Channel 66A

Roche Harbor,

www.rocheharbor.com, 1-800-451-3590 Rosario Marina

www.rosarioresort.com/ the-marina, 1-800-562-8820, VHF Channel 78A

Local & Regional Ecosystem Information

Friday Harbor Labs (UW). www.depts.washington.edu/fhl,

378-2165, fhlabdmin@ u.washington.edu, 620 University Road

Friends of the San Juans, www.sanjuans.org, 378-2319, 650 Mullis Street, Suite 201,

Kwiaht, www.kwiaht.org, 468-2808 rlbarsh@gmail.com, Lopez

NW Straits Commission, www.nwstraits.org

Puget Sound Partnership, www.psp.wa.gov

San Juan Nature Institute,

www.sjnature.org, 378-3646, info@ sjnature.org, 470 Spring Street, Friday Harbor

SeaDoc Society,

Friday Harbor

www.seadocsociety.org, 376-3910, jkgaydos@ucdavis.edu, 942 Deer Harbor Road, Eastsound

The Whale Museum,

www.whalemuseum.org, 378-4710, info@whalemuseum.org, 62 First Street, Friday Harbor

Volunteer Opportunities Center for Whale Research.

www.whaleresearch.com, 378-5835, orcasurv@rockisland.com, Friday Harbor

Islands' Oil Spill Association (IOSA), www.iosaonline.org, 378-5322, iosaoffice@rockisland.com. San Juan Island

People for Puget Sound, www.pugetsound.org

WSU Extension Beach Watchers, www.saniuan.wsu.edu, 378-4414, sweston@wsu.edu, 221 Weber Way Suite LL, Friday Harbor

Wolf Hollow Wildlife Rehabilitation Center, www.wolfhollowwildlife. org, 378-5000, wolfhollow@ wolfhollowwildlife.org, 284 Boyce Road, San Juan Island

Habitat Conservation

SJC Land Bank,

www.sjclandbank.org, 378-4402, sjclandbank@rockisland.com, 328 Caines Street, Friday Harbor

San Juan Preservation Trust,

www.sipt.org, 468-3202, info@sipt. org, 468 Argyle Street, Suites B-D, Friday Harbor and 3157 Fisherman Bay Road, Lopez

County Advisory Groups

Agricultural Resources Committee, www.sjcarc.org, 378-6621, arc@ sanjuanislandscd.org, 540 Guard

Economic Advisory Council, www.islandway.org, 378-2906, info@islandway.org, PO Box 3053, Friday Harbor, WA 98250

Lead Entity for Salmon Recovery, www.sjcmrc.org/programs/ salmon, 370-7593, barbarar@co. san-juan.wa.us, 135 Rhone Street, Friday Harbor

Marine Resources Committee, www.sjcmrc.org, 370-7594, maryk@co.san-juan.wa.us, 135 Rhone Street, Friday Harbor

San Juan Initiative,

www. sanjuaninitiative.org, 298-2278, amy.windrope@psp.wa.gov, 512 Guard Street, Friday Harbor

Hazardous Waste Collection

Visit www.sanjuanco.com/ publicworks/Haz_waste for the schedule of Roundups for Orcas, Lopez and San Juan islands or contact Helen Venada at 370-0503 or helenv@sjcpublicworks.org

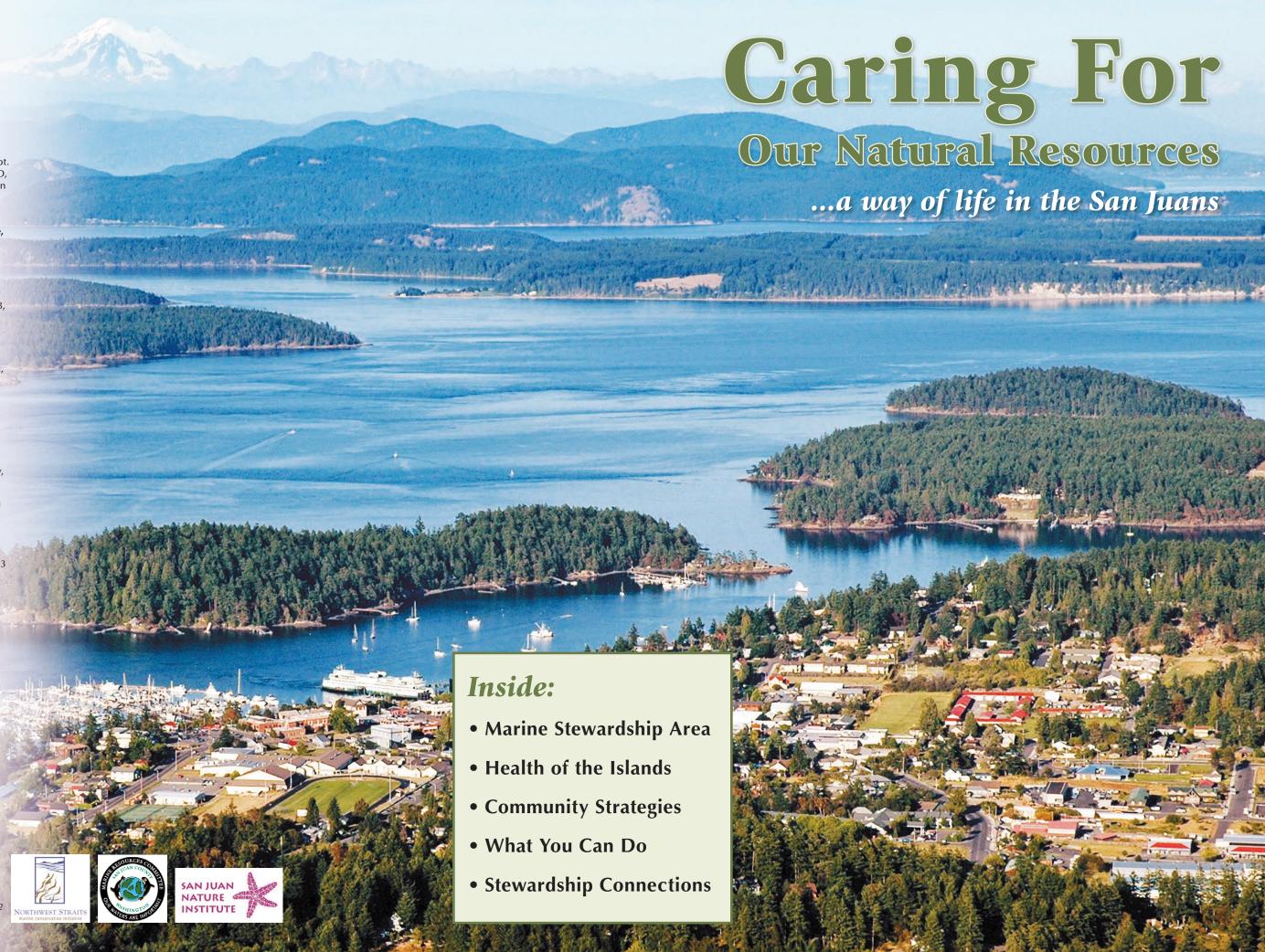
Marine Mammal Stranding Network

Call 1-800-562-8832 with the exact location to report a stranded marine mammal in San Juan County. Do not move it and keep dogs and people away.

Street Suite 150, Friday Harbor

Oversight and funding for this publication were provided by the county Marine Resources Committee (MRC), with sponsorship by the Northwest Straits Commission. This publication was coordinated by the San Juan Nature Institute with design assistance and printing by Sound Publishing.

For more information, feedback, or ideas about this publication, contact SJC Marine Resources Committee, 360-378-7592 or www.sjcmrc.org Acknowledgements: SJI Conservation District and WSU Extension Jefferson County



marine stewardship area



our sea • our source • our future

You're in a Marine Stewardship Area Now!

Our MSA includes all of San Juan County

ur location in the Salish Sea at the crossroads of the Strait of Juan de Fuca, Strait of Georgia and Puget Sound provides food rich waters able to support abundant marine life.

In 2004, the San Juan County Commissioners designated the entire county a marine stewardship area. We have over 400 miles of shoreline and only 175 square miles of land spread over

The San Juan
Archipelago is
an exceptionally
rich area of
biological
diversity.

an island chain with between 420 - 700islands, reefs and rocks depending on the tide. These waters and shorelines are home to six species of salmon, orcas, Dall's porpoise, Steller's sea lions, river and sea otters, lingcod, several species

of rockfish, and over 100 species of marine birds. Twenty-two varieties of endangered Puget Sound Chinook salmon use the San Juans in various life cycle stages. Two valuable habitats that provide food and shelter for several kinds of marine life are found throughout the San Juans — eelgrass is located along 140 miles of our shoreline, and one third of the kelp in Puget Sound is found here.

The Salish Sea is trans-boundary and includes the Strait of Juan de Fuca, Strait of Georgia and Puget Sound.

Measuring the Health of the San Juans

Web of life connections — orcas need salmon, salmon and sea birds need herring, and herring need eelgrass beds... let's keep them healthy!



Laura Tidwell photographs an intertidal survey on Crescent Beach, Orcas Island.

Photo courtesy of San Juan Nature Institute, www.sjnature.org

hile the San Juans still have a lot of healthy habitat and wildlife, there are signs that these treasures may be in jeopardy if we don't act to protect them. Long time residents and scientists agree — the wildlife is not what it used to be.

Over 60 species of marine fish and wildlife historically found in the San Juans are currently listed as threatened or endangered or are candidates for listing.

Taking care of the complex and dynamic ecosystems that make up the San Juans is challenging. Our knowledge of local marine and terrestrial systems is growing, but we still need information in some areas.

Why be optimistic?

The San Juans are still relatively healthy compared to much of the mainland. Though we have one of the fastest growth rates in the state, we can learn from the successes and mistakes of other communities and use that information to guide how we manage growth in a way that protects our shared treasures. Recognizing how much our local economies, land values and life styles depend upon healthy ecosystems, we can make *stewardship choices* in our everyday lives.

Science, land use policy and resource management are evolving to help us make decisions about how to grow while causing the least harm. Most important of all — many who live in the San Juans are committed to do what is necessary to be good stewards of this unique and special place.

We are making progress!

THANKS go to all of the local businesses, residents, and visitors who make countless everyday decisions that improve the health of our island ecosystems.

- Our local spot prawn fishery is in good shape
- Our local Dungeness crab fishery is still active
- With a limited number of streams running year round, we have 8 with recent (2004-2007) evidence of coastal cutthroat spawning, and 3 streams with recent use by coho and chum
- No local shellfish beds or swimming beaches have been closed because of bacterial contamination
- Our food web is cleaner than other regions of the Salish Sea (as indicated by contaminant levels in local mussels and seals)
- Less than 1% of SJC is paved, so more

rainfall soaks in to replenish precious groundwater supplies, and there is less runoff fertilizers, pesticides, toilets and water, how and to create erosion

- Only 12% of shorelines in the San Juans are bulkheaded, compared to 30% in Puget Sound
- The County is providing technical assistance to business owners to prevent pollution and help builders reduce runoff from construction sites, and updating development regulations to better protect water supplies and fish and wildlife habitats
- Attracted by local wildlife and beauty tourists spent \$119 million here in 2005, underscoring that our economic prosperity is supported by and compatible with caring for our local ecosystems.

the largest single river salmon runs in the world migrate through the San Juans.

where we build a home, how we landscape our yard, affects the health of our Marine Stewardship Area. Because the distance to the nearest

Fish from one of

 Spawning herring have disappeared from Westcott Bay and reduced numbers are seen at

- In a recent survey of 4 shoreline neighborhoods, 30% of mooring buoys and 26% of docks were located in eelgrass; 30% of shorelines with feeder bluffs were bulkheaded, cutting off the sediment supply for nearby forage fish and eelgrass beds; and half of the 71 parcels with forage fish spawning beds were bulkheaded
- Eleven local estuaries, which are critical juvenile salmon habitat, are at risk because poorly managed upland development has altered their freshwater inputs
- East Sound had low oxygen and high nitrogen levels (both harmful to marine life) when last measured from 2001 to 2005
- Thin soils and bedrock make most of our limited groundwater supplies either highly or moderately susceptible to contamination.

Local Community Involvement

The San Juan Marine Stewardship Area resulted from the vision of dozens of local community leaders working together to create a plan which would sustain our use and enjoyment of local marine resources based on the best available science. In 2007, the county adopted a plan representing three years of effort by the Marine Resources Committee and local fishers, community members, businesses, local and regional scientists, technical advisors, and local and regional organizations including the UW Friday Harbor Labs, the SeaDoc Society, The Nature Conservancy, and Surfrider Foundation.

About This Publication: The purpose of this publication is to fill you in on local marine resource issues and let you know how you can be involved in the caring for, or stewardship, of the natural resources which we all value.

Stewardship is everyone's business and responsibility. Added together, all of our everyday choices, big and small, make a larger impact on the health of our Islands than most government policies to date. Our voluntary choices will be the deciding factor in sustaining what we value most about our Islands.

THANKS go to all of the local businesses, residents, and visitors who make countless decisions that improve the health of our local ecosystems.

On the Cover: Aerial photo of the San Juan Archipelago and Salish Sea by Michael Bertrand, www.michaelbertrandphotography.com

Why be concerned?

heads and docks line the shore.

See for yourself. On a rainy day, take a walk to a ferry landing or through one of our villages and watch the rivulets of oily or muddy water pour off streets and parking areas or construction sites into storm drains leading to Friday Harbor, East Sound or Fisherman's Bay. Take a boat ride and see how many houses are built too close to the shoreline with native plants replaced by lawns. Note how many bulk-

Everything we do on the land — how we tend

—Jack Girard, commercial fisherman of 50 years

> trapped over 18,000 animals including marine mammals, seabirds, fish and invertebrates; the San Juans have the highest concentration of lost nets (264) found during a recent survey of the region 82 acres of eelgrass were lost from Westcott and other small bays between 1995 and 2004

our pets and farm animals, our use of cars,

shoreline is so short in our

and activities have an even

Northern abalone are in

• Rockfish species are no

Local resident blackmouth,

important prey for orcas, are

Declines in resident orca

populations recently triggered

their listing as an endangered

species, and pollutant loads in

these orcas are high enough to

Tufted puffins no longer nest

here, and some marine bird

impact their health

populations have declined by as much as 50

percent in the region since the 1970's

• 600 recently recovered lost fishing nets

greater impact here.

danger of extinction

longer abundant

declining

islands, these everyday choices

Special Sites Around the Islands

ong recognized as a biological treasure, the San Juans have many sites predating 2004 that are devoted to research, education, recreation and conservation. Our caring for these sites will ensure a precious legacy for future generations. In order to recover declining fisheries and wildlife populations, a small number of sites are currently closed to harvest or public access. This has worked for lingcod, but rockfish and other species still need help.

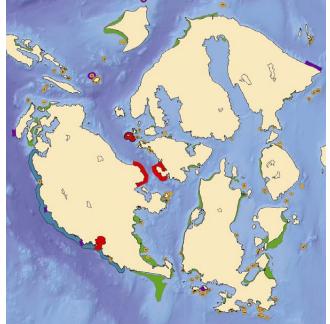
Sensitive Eelgrass Areas (green) Eelgrass provides critical habitat for juvenile fish and many other marine species

Bottomfish Recovery Zones (purple) Voluntary no-take zones set up to protect rockfish

National Wildlife Refuges (yellow) Protection for seabird colonies and marine mammals

Whalewatch Exclusion Zone (blue) Boater free zone for orcas in their favorite feeding areas

Marine Preserves (red) Research and conservation sites



Pick up a full sized map at the Marine Resources Committee office, 135 Rhone Street, Friday Harbor

History of our San Juan Marine Stewardship Area

A Local Grassroots Effort

In response to a local grassroots effort, the Marine Resources Committee, a group of local appointees that advises San Juan County on marine issues, is established. This group consists of community members including commercial fishers, scientists, whale watch operators, other commercial users, and conservation group members. The first of its kind in Puget Sound, our local version serves as a successful model for seven other MRCs in the Salish Sea.

MRC develops a proposal for a local Marine Stewardship Area.

Board of County Commissioners designates all of San Juan County as a Marine Stewardship Area and charters the MRC to create a protection plan.

2004 to 2007

MRC works with dozens of local businesses, scientists, resource managers, elected officials, and residents to understand how our local economies and social values are at risk from declining marine health, and to create the San Juan Marine Stewardship Area Plan.

Spring 2007

At community workshops held throughout the Islands, locals choose protection strategies from the plan they are most willing to support.

July 2007

County Council adopts the Marine Stewardship Area Plan, which includes all of San Juan County.

July 2007 to present

Ongoing implementation of Six Top Protection Strategies. MRC focus on strategies in annual work plan and in advisory role to the County. To track our progress, a Monitoring Plan has been developed in partnership with community members, local scientists, and marine managers.

SIX TOP STRATEGIES

for protecting our Marine Stewardship Area

Foster a stewardship ethic in residents and visitors

marine stewardship area our sea • our source • our future

As one of the fastest growing communities in the state, holding some of the healthiest remaining natural resources, San Juan County is at a crossroads for achieving a sustainable future for marine resources or losing them by degrees — one rockfish, eelgrass bed, or orca calf at a time. The path towards sustainability requires that residents, businesses and visitors take personal responsibility for caring for the natural wealth held in private ownership and public trust.

Reduce toxins entering the food web

Pollutants that persist and concentrate in fatty tissues cause stress to food webs and the entire ecosystem. Toxins found in bottom sediments, fish, salmon and orcas can also reach our bodies through consumption of fish and shellfish. We can do our part by not contributing toxins locally even though pollutants from urban bays in Puget Sound can travel through the food web to the San Juans.

Manage activities to reduce harm to marine habitat and water quality

A tiger rockfish, Sebastes nigrocinctus. Photo courtesy of Jennifer Vanderho

Many communities spend a great deal of money effort and resources to fix problems caused by poorly thought out development. We still have the chance to prevent many of these problems through proper land use policies, improving stormwater management, and implementing smart growth and low impact development practices.



Reduce the risk of large oil spills in our waters

tail lob. Photo courtesy of The Whale Museum,

Vessels transporting more than 15 billion gallons of oil through the Salish Sea each year travel close to our shorelines. The potential devastation from a large oil spill poses a great threat to our local marine ecosystems and the Island economies that depend upon them.



Preserve marine access and views

Access to beautiful beaches, diverse and abundant wildlife and stunning views are a big reason why people come to the San Juans. These resources need to be managed for the health of our economy, our enjoyment, and preserved for our children's children.

Recover bottom fish species

Harvest restrictions for lingcod appear to be working to rebuild stocks while other bottom fish populations are still in trouble. For example, accidental harvest while fishing for other species is particularly hard on deep water rockfish, which often don't survive the ascent. Because rockfish are long lived and slow growing, they have a hard time recovering when populations become depleted.

4 | San Juan Nature Institute & Marine Resources Committee | 2008

Sustainable Practices — What you can do!

Simple steps you and your family can take that will improve the health of our Islands

aring for our natural resources — stewardship — is a way of life in the San Juan Islands. Begun by old timers who got much of their sustenance from fishing and harvesting shorelines, it is mainly about making easy, sensible and often economical choices in our everyday lives. It's immensely rewarding, even fun. And it's something we do as much for ourselves as for the natural environment that sustains us.

For technical information and assistance, volunteer opportunities, and what San Juan County is doing, check out the Stewardship Connections section on the back page. There you will find contact information on the groups listed.

LEARN about the natural systems of the San Juans and the Salish Sea

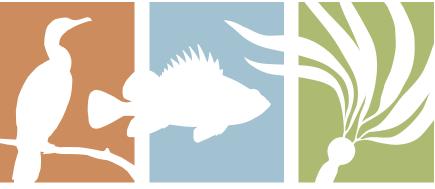
One of the best investments you can make is to understand how our local ecosystems function so that you can make decisions that keep them healthy. Attend a workshop or lecture and bring a friend.

The San Juan Nature Institute, SeaDoc Society, The Whale Museum, and WSU Extension Beach Watchers provide opportunities to learn about our local ecology. Contact the MRC

to schedule a talk about our Marine Stewardship Area for your organization or class.

PRESERVE seagrass beds and forage fish spawning areas

Seagrass and kelp beds provide critical habitat for juvenile salmon and a host of other marine life. Certain beaches are spawning areas for smelt and sand lance, important food sources for larger species. Vegetatian along shorelines shades forage fish eggs buried in the sand. Herring, a critical link in the marine food web, use eelgrass beds to spawn. Respect the high habitat value of these areas, and don't install docks and mooring buoys in them. Avoid anchoring in, boating through, or otherwise disturbing



marine stewardship area our sea • our source • our future

seagrasses and kelp. Learn when to stay off of certain beaches during spawning seasons.

For further info, see 'Living with the shoreline' published by Friends of the San Juans.

THINK stewardship when you shop

Use less plastic and reusable shopping bags. Choose less or recyclable packaging. Patronize local businesses, especially those that employ sustainable practices and offer green products and services. Buy locally grown foods.

Identify local "green" businesses through these websites: www.orcasislandchamber.com, www.sanjuanisland.org, www.lopezislanad.com, www.visitsanjuans.com

Save money and keep your septic system healthy!

Instead of using additives, inspect your septic system every two years. Go to www.sanjuanco.com/Health (select Septic Systems tab) for info on:

- Low interest loans for septic system repairs
- Save \$350 to \$550 by taking a free class on "do your own" septic inspections Email markb@san-juan.wa.us or call 378-4474 for more info on the county's Septic Operation and Maintenance program

Products that can kill your septic tank and drain field bacteria are also harmful to marine and freshwater animals and plants Please keep them out of our waters DO NOT FLUSH or DUMP DOWN DRAINS!

Antifreeze, fertilizers, gasoline, herbicides, latex paint (dry out and put in garbage), lye-based drain openers, motor oil, oil-based paints and stains, paint thinners, pesticides, prescription medications (crush and put in garbage), solvents. For a Hazardous Waste Roundup schedule, contact helenv@sjcpublicworks.org, 370-0503.

Products that cause problems in septic tanks

Cat litter (even the flushable kind), cigarette butts, cloth rags, cleaning wipes, coffee grounds, cooking oils, dental floss, disposable diapers, facial tissues, grease, hair, matches, newspaper, paper towels, plastic, sanitary napkins, tampons and/or applicators

SUPPORT OUR LOCAL FARMERS!

Farmers' Markets on Orcas, Lopez and San Juan start at 10am every Saturday, May through September.

PROTECT our drinking water supplies Our water supplies are precious, limited and vulnerable to pollution. Turn off the faucet while you brush your teeth or shave, take shorter showers, wash full loads of dishes and laundry, and install low flow toilets and washing machines. Harvesting rain water for use in your

landscaping reduces runoff and

replenishes groundwater supplies.

For more information on rain water harvest, contact SJC Health and Community Services; contact the Town of Friday Harbor for information on water conservation techniques.

MAINTAIN your septic system Septic systems are designed to process only human waste, toilet paper and water from everyday household uses. Avoid putting toxic cleaners and strong chemicals down the drain. Disconnect your garbage disposal and compost or throw away food scraps. A failed system can pollute surface and groundwater, so have your septic system inspected regularly.

For more information about how to care

for your system, contact SJC Health and Community Services, www.sanjuanco.com/health (choose Septic Systems tab).

LIMIT pesticide and fertilizer usage

Reduce lawn size and landscape with native plants. Instead of fertilizer, boost soil with compost and leave grass clippings on the lawn when you mow — your garden and lawn will need less water and fewer nutrients. Tolerate some pests — a healthy garden has a balance of beneficial and nonbeneficial insects. Hand weed, hoe or mow weeds before they set seed.

Choose the least harmful products — for a list ranking the toxicity of common ingredients, go to www. sjcmrc.org. For information and technical assistance on 6 and 7, contact

WSU Master Gardeners and the SJC Noxious Weed Board.

ENCOURAGE native plants and trees
Once established, native plants and trees prevent erosion, require less water, fertilizer and pesticides, and overhang beaches, wetlands and streams to provide shade and insect food for fish and wildlife. The best way to encourage native plants and trees is to keep what's already on the site and to avoid disturbing native soil.

USE care if developing bluffs and beaches

Beaches and bluffs feed sediments to spits and coves. Seawalls and bulkheads interrupt the natural replenishment of beach material. Property owners may unknowingly increase bluff erosion by clearing vegetation, disturbing soils and modifying bluffs for access. Respect native vegetation and leave it in place wherever possible.

For more information, see Managing Vegetation on Coastal Slopes, www.ecy.wa.gov/programs/sea/pubs/93-31/intro.html and Slope Stabilization and Erosion Control, www.ecy.wa.gov/programs/sea/pubs/93-30/index.html

AVOID building bulkheads, docks, and other shoreline structures

Bulkheads reflect waves and can change the composition of the sediments and marine life living on the beach. They can destroy seagrass beds and forage fish habitat. Respect your beach and leave it as natural as possible. Look into sharing neighboring docks, or use public access facilities. If you have a problem with erosion, consider soft shore methods which use natural materials to absorb wave energy.

For further information, see www.coastalgeo.com

MANAGE stormwater runoff and prevent erosion
Site development and construction often creates sediment laden runoff which picks up pollutants and runs into wetlands, streams and nearshore waters. Too much can harm aquatic and marine life. The best way to control runoff on any property, either new development or established, is to retain native plants and soils, especially near wetlands, streams, shorelines and along bluffs.

For technical assistance to landowners and information about low impact development and green building techniques, contact the San Juan Islands Conservation District.

Are you planning to build, remodel or otherwise develop property?



Photo courtesy of Sound Publishing

Throughout the planning, site preparation, construction and landscaping processes, the decisions you make are critical and will have significant positive or negative impacts.

When designing your site:

- Know if sensitive or rare species or habitats (shorelines, wetlands and streams) are on your property and avoid disturbing them
- Retain vegetation and minimize erosion, runoff and soil compaction by designing the smallest access road and staging area possible
- MAKE SURE your architect is familiar with the San Juans
- Keep the "footprint" or ground coverage of your buildings, parking area and driveway as small as possible
- Hire a professional to complete a stormwater plan that minimizes erosion and encourages recharge of groundwater supplies.

When building:

- Hire contractors skilled in low impact development and green building
- Clear and excavate only where necessary, do not rely on your contractor to know this
- Follow your stormwater plan, use filter fencing and other methods to limit erosion
- Use materials that allow for water infiltration into the soil, such as permeable pavers.

When landscaping your grounds, yard or garden:

- Hire a landscaper who is familiar with native species and skilled in green techniques
- Retain native vegetation as the backbone of your landscape and install native plants where they have been removed
- Consider salvaging native plants during site clearing
- Preserve shoreline, wetlands and streamside areas when planning your landscape
- Install a rain garden to help runoff from your roof, decks, driveway and parking areas soak into the ground.



Nathan Brandow records an eagle landing with a headless salmon (silver or blackmouth) on the NE shore of Sucia Island.

Photo courtesy of Outer Island Expeditions, www.outerislandx.com