ESTUARY WISE

INFORMATION AND TIPS ON HOW TO PROTECT OUR BAY AND DELTA

Healthy Home/Healthy Estuary

Published by the San Francisco Estuary Partnership

id you know that what you do in your home and yard could be affecting the health of the San Francisco Bay Estuary? Check out these tips to find ways you can help the Estuary. If we carefully choose the products we buy and the methods in which we dispose of unwanted materials, we live healthier, and so do the fish.

1 Redirect runoff from your roof into a rain barrel. This free source of water for your plants not only reduces the cost of irrigation and the amount of fresh water diverted from our rivers—leaving more water for fish—but also decreases the amount of polluted runoff that ends up in the San Francisco Bay Estuary.

Redirect roof runoff into a rain garden.
Rain gardens are shallow depressions planted with shrubs, trees, and other plants that absorb runoff and filter pollutants. Since about 70% of the pollution in waterways comes from urban runoff during storms, a rain garden is an effective and attractive way to help. For more information on rain gardens or instructions on how to build your own, see our "Claim the Rain"

how-to guide for homeowners at www.sfestuary.org, visit www.raingardens.org, or see http://www.pierce.wsu.edu/Water_Quality/LID/Raingarden_handbook.pdf.

3 Check for standing water on your property that can encourage mosquitoes to breed. Change bird bath water frequently.



Shotwell Street, San Francisco: before. Too much concrete means no rain can infiltrate the ground. Photo courtesy of plantsf.org.

4 "Green" your pavement. Break up unnecessary asphalt or concrete on your property (you can re-use chopped-up concrete to create "stone walls" for landscaping or raised vegetable beds). Every bit less pavement means more room for the ground to "breathe" and absorb rainwater. See how some San Francisco residents have created permeable sidewalk gardens at www.plantsf.org and in the photos on these pages.

Choose water-based paints over oilbased paints to use inside your home. Look for paints that have low levels of VOC (volatile organic compounds) or zero-VOC, which are usually measured in grams per liter and should be listed on the paint can. These paints have less toxic emissions and will be the least polluting to the air in your home. Check labels on paint cans to make sure that no other harmful chemicals are present, and don't use paints that are over 15 years old as they may contain toxic levels of lead. Wash paint brushes in utility sinks that are connected to the sanitary sewer system.

Never dump paint waste into the gutter, storm drain, or anywhere else outside. Even paint that is low in toxins can still harm wildlife. Paint and even empty paint cans are considered hazardous waste and should only be disposed of at a hazardous waste facility. The Bay Area has many locations for safe hazardous disposal of paints and other items like batteries, chemicals, and light bulbs. For a complete list of acceptable hazardous materials that you can drop off and locations, visit wwwstopwaste.org.

Reuse paint thinner by pouring excess or leftover thinner into a sealed glass container or jar. Let sit to allow the solid matter to settle at the bottom, and then pour the top layer of liquid thinner into another container, which should be tightly sealed and labeled accordingly. Do not throw the remaining solid material in the trash. Instead, dispose of the solid material at your local hazardous waste facility.

6 Keep windows properly screened and sealed to prevent pests from entering your home. If you re-caulk your windows

or install new ones, make sure you carefully clean up any old caulking around on the ground outside your home. Older caulking and some paint may contain PCBs, or polychlorinated biphenyls, which are likely human carcinogens, are harmful to wildlife, and can run off into the Estuary in stormwater.

De-tox your medicine cabinet. The American Medical Association discourages the use of triclosan, a common ingredient in many "antibacterial" hand soaps and sanitizers and some brands of toothpaste. Once activated with water, triclosan breaks down into chloroform, a known human carcinogen, and dioxin, which is harmful to aquatic organisms. Read the labels and buy products without this chemical; old fashioned soap and water are safer for the environment—and you—than "anti-bacterial" soaps containing triclosan.

Obon't spill your pills down your toilet or sink drain. Although flushing medications down a toilet might seem like a convenient way to get rid of expired or unwanted medicine, wastewater treatment plants can't fully remove all pharmaceutical ingredients before the treated wastewater is discharged into the Estuary. Male fish have developed female sex characteristics after being exposed to estrogen, the hormone found in birth control and hormone replacement pills. Other pharmaceuticals delay fish development and negatively affect wildlife.

Many pharmacies collect unwanted drugs for free and hold events where you can drop off medications for safe disposal. To find your nearest drop off location, go to the Medical Waste Disposal Directory database at www/ciwmb.ca.gov/hhw/HealthCare/ Collection/Default.aspx and search in your county, or ask your pharmacist. For more information, visit www. nodrugsdownthedrain.org/statewidecampaign.html



Shotwell Street, San Francisco: after. Plants filter and slow runoff. Photo courtesy of plantsf.org.

9 Fight "FOG"! Don't clog the drain—or sewer system. Do not dump grease or animal fat down the drain—fats, oil, and grease ("FOG") can clog sewer treatment pipes and pollute the Estuary.

1 On't buy bottled water. Because the U.S. EPA's standards for tap water are higher than the Food and Drug Administration's standards for bottled water, drinking water right from your sink is—in most cases—better for the environment, and cleaner and healthier for you. If you're still worried about the quality of your tap water, opt for a water filter that can fit on your faucet or in your fridge. If you're thirsty and away from home, buy reusable water bottles.

Use reusable shopping bags to avoid using plastic—plastic bags and plastic debris are polluting the Estuary, resulting in a giant plastic garbage patch in the Pacific Ocean. Many grocers and retailers sell bags made from recycled materials that will last through many trips from the store to your home.

When you return from a trip, check your luggage to make sure you have not brought pests into your home—this will help you to avoid using pesticides indoors.

The Argentine ant, the most commonly found ant around the Bay Area, eats many other insect pests and helps soil stay healthy and full of nutrients. To keep them outside, make sure all food is sealed or stored in your refrigerator, and seal any cracks with caulk. Keep pet food stored in closed bins. If you find unwanted ants inside (or outside), choose the least toxic product possible to discourage them. Orange Guard, a water-based and environmentally friendly pest controller, is approved by the U.S. EPA for use around humans and pets. Mixing water with peppermint soap, like Dr. Bronner's Magic Soaps, in a spray bottle and spraying it directly on ants and in their trail is also non-toxic and highly effective. You can also make your own non-toxic ant baits with talcum powder, damp coffee grounds, salt, or cayenne pepper, and place the bait where ants are entering your home.

If you locate the entrance, clog it with toothpaste or duct tape.

12 Dispose of garbage in tightly sealed bags in your garbage can. Lots of loose garbage ends up on the street—and in storm drains and the Estuary.

13 Pick up after your pet to avoid animal waste washing into storm drains or waterways.

1 4 Store wood, compost piles, and mulch away from your home's foundation to avoid attracting pests and mold.

15 Plant a native garden. Native plants attract beneficial bugs—food for the birds!—that will help control unwanted pests. Native plants will also attract native pollinators and add to biodiversity, plus they need less water than plants from other climates and ecosystems.

16 Rethink the road. As easy as it is to jump in a car and go, it is also easy to forget the harmful impact of our cars—not just on air quality but on water quality too. Maintaining a car requires massive amounts of gasoline, oil, and other chemicals that find their way into the Estuary. Car batteries, used motor oil, and soap suds from washing your car all need careful treatment because of their potentially severe impacts on critters in our creeks and Estuary.

If you can, leave the car at home and take advantage of your city's public transportation. Alternatively, consider carpooling: many companies offer employee incentives for carpooling and ride-sharing. Visit http://www.ridenow.org/carpool/ for carpooling options and information in the Bay Area. Consider walking or biking as an alternative to driving—and as a way to stay fit and healthy. Many public transit systems allow you to travel with your bike aboard the bus or train.

If you must use a car, don't dump used oil, gasoline, or other automotive products into the toilet, sink, storm drain, street gutter, or onto



the ground. Remember that our storm drains flow directly into the Estuary; substances that enter the storm drain do not pass through a filtration system first.

Three million gallons of oil enter the Estuary each year—from people spilling, dumping, or leaking it. Make sure your car is properly tuned up. If you change your oil yourself, make sure not to drip it—better yet, recycle used motor oil at an auto center or a gas station. Oil is not the only car-related pollutant. All cars, even hybrids, contribute heavy metals—like lead, zinc, and copper—to the Estuary. For more suggestions and helpful reminders about ways to avoid storm drain pollution, visit www. flowstobay.org.

Take your car on a date—to the car wash, where wastewater gets treated. If you must wash your car at home, use a biodegradable soap specifically for automobiles. Park your car on gravel or grass if possible, so that soap suds can be rinsed off and filtered through vegetation and soil before flowing into our waterways. Like oil, soapy water and the grimy residue on your car can harm and kill the critters that live in our creeks and Estuary. Washing your car on grass greatly reduces those risks. Fill buckets with soapy water for washing; use only a hose for final rinsing. Always dump dirty or soapy water down the sink drain, not on your driveway or in the street, or use it to water plants or lawn.

If you have a pool, make sure it's cool. Do not drain it to a storm drain. Use sanitary sewer cleanouts to dispose of pool or spa water, and notify your sanitary district a day in advance. If you cannot drain your pool to the sanitary sewer, drain dechlorinated pool water to landscaped or unpaved areas so it can be filtered through the ground.

Illustrations: Lisa Krieshok Research: Suzanne Spencer Editing: Lisa Owens Viani

Photos: Jane Martin, Plant SF http://www.

plantsf.org/

Design: Bobbi Sloan



San Francisco Estuary Partnership 1515 Clay Street, 14th Floor Oakland, CA 94612 (510) 622-2304 www.sfestuary.org