

Greetings!

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Stormwater and You

Based on an article by Martha Maxwell, Partnership for the Delaware Estuary

Stormwater runoff occurs when water from rain and sprinkler systems flows over impermeable surfaces such as driveways, sidewalks and streets. Rather than naturally soaking into the ground, this stormwater picks up debris, chemicals, bacteria and other pollutants on its way to the stormdrains in our streets. It is then discharged as untreated runoff into the water bodies we use for swimming, fishing, boating and more.

Fortunately there are a variety of measures that individual citizens like you can take to combat the effects of stormwater runoff. These measures include:

Residential Stormwater Management

- Recycle or properly dispose of all paints and household products that contain chemicals. NEVER pour these products onto the ground or into the stormdrains. Contact your local government to find a disposal center near you.
- Do not over water your yard. Hand watering is best. If you must use an irrigation system make sure it is calibrated correctly for your landscape needs, has a rain

Dear Partners and Citizens:

Since the inception of the Sarasota Bay Estuary Program (SBEP) in 1989, the water quality in Sarasota Bay has improved. Local government partners have made vast improvements in wastewater quality and quantity by upgrading sewer treatment facilities. Wastewater now accounts for only 15% of the nitrogen pollution entering Sarasota Bay. However, non-point source pollution loads from stormwater runoff remain high accounting for 61% of the nitrogen loads entering Sarasota Bay. Non-point source pollution is Sarasota Bay's biggest water quality problem. Non-point source pollution occurs when water from rain or sprinkler systems flows over the ground, picking up garbage, chemicals,

sensor and uses microirrigation.

- Use plant materials to fertilize your landscape. Spread grass clippings onto your lawn for a natural fertilizer. Use non-cypress mulch, oak leaves, pine needles and compost to fertilize flower beds and trees. NEVER sweep these materials into the street or blow them down the stormdrain.
- Turn your downspouts away from impervious surfaces like driveways, pathways, streets and sidewalks, which direct the water straight into the gutter and stormdrains. Instead turn downspouts so that they flow into grassy areas or plant beds. The plants will enjoy the water, help filter out the pollutants and reduce the stormwater flowing off of your property.

Septic System Management

- Inspect your septic system and pump your tank every three to five years. Doing so prevents nutrients, viruses and bacteria in your septic system from entering local waterways.
- Do not dispose of household hazardous waste in sinks or toilets.

Automobile Care

- When washing your car, use a commercial car wash. Commercial car washes are required to trap the wastewater and do not let it run onto the street and into our waterways. Another option is washing your car on your grass. Your lawn will absorb the wastewater and keep it out of our waterways.
- Repair car leaks and dispose of used automotive fluids, batteries and degreasers at designated drop-off points or recycling centers. Contact your local municipality for hazardous waste and recycling centers near you.
- Take care of your car. Cars that are well maintained run more efficiently and produce less pollution than cars

nutrients and other materials on its way to the stormdrains in our streets. These stormdrains then dump untreated runoff into our local creeks and waterways, which flow into Sarasota Bay. Non-point source pollution is different from point source pollution in that there is no one source of the pollution and, thus, it is much harder to track, regulate or remedy. These added nutrients stimulate algae blooms which can result in murky water, decreased seagrass productivity and can suffocate fish. Due to the importance of this issue for our area, we have dedicated this issue of Bay Reflections to non-point source pollution.

Our feature article [Stormwater and You](#) is based on a great editorial that appeared in *Estuary News* in Fall 2005. You can also find updates on SBEP's restoration and outreach over the summer. Our guest column in this edition is written by Madison Chapman who is a

that are not.

Pet Waste Disposal

- When walking your pet, pick up after them. Flushing pet waste down the toilet is the most effective method of disposal. However disposing of pet waste in the trash is also effective. Leaving pet waste on the ground increases public health risks by allowing harmful bacteria and nutrients to wash into stormdrains and eventually into local waterways.

Landscaping Practices

There are many things that individuals can do to improve their landscape while reducing their impacts on the Bay.

- Use pavement alternatives. Traditional concrete and asphalt do not allow water to soak into the ground. Pavement alternatives such as gravel, shell, pavers or pervious pavement allow stormwater to soak through, decreasing quantities of runoff.
- Trap rain and use it on your property. There are several ways to trap and reuse rain water like installing a rain barrel at the end of your downspouts. Attach a hose to the barrel and you can use the accumulated rain to water plants during dry spells. You can also install rain gardens and bio-swales. These low areas collect water and keep it on your property. Install water-loving plants in these areas to create diversity and attract wildlife to your yard.
- Vegetated filter strips are areas of plants between impervious surfaces. These planted strips can have turf, wildflowers or shrubs to break up impervious surfaces and absorb stormwater before it runs into the street.
- Plant native plants, which have evolved to handle the sometimes unpredictable Florida weather. Native plants need less water, less fertilizer, are naturally pest resistant, provide food and nesting for wildlife and resist hurricane damage. Why wouldn't you plant natives?

member of the 4H Club, Reef Rovers, and is an avid volunteer for the SBEP. Madison's column highlights one of the many projects that SBEP is engaged in with our partners to raise awareness of stormwater runoff and non-point source pollution in our area. If you are interested in raising awareness about stormwater runoff and learning how your neighborhood can prevent this type of pollution contact SBEP's Public Outreach Coordinator, Julia Burch at julia@sarasotabay.org for more information.

Finally I want to congratulate SBEP Citizen Advisory Committee member Rick Smith who won 2nd Place at the Gulf Guardian Awards. Rick is an elementary school teacher in Manatee County and very involved with many environmental youth organizations, including the Reef Rakers and Bay Buddies. Rick and his students have contributed countless

- Remove exotic invasive plants from your yard. Invasive plants cause millions of dollars in agricultural and ecological damage to Florida's economy every year. Be a part of the solution by removing invasives from your yard and disposing of them properly. This simple act will help restore Sarasota Bay.

- Attract wildlife. As development in our watershed increases, the habitats that people provide in their backyards become more and more important. Backyards full of native plants that provide food and shelter for wildlife can be important stepping stones between larger environmental parks. Wildlife are also attracted to the bubbling noises of a garden water feature.

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Restoration & Outreach

Restoration

SBEP's habitat restoration efforts continued this fall throughout the watershed. SBEP is currently involved in various phases of planning and construction of six habitat restoration projects. Here is an update on our recent progress.

The restoration of Robinson Preserve continues with earthwork and exotics removal. These are essentially complete except for the northeast portion of the preserve. The re-vegetation phase has begun and is expected to be completed by the end of the year. The final work at Robinson Preserve is being delayed to allow Manatee County time to move a historical structure on site that will serve as the welcome and educational center.

Also in Manatee County the planning for Phase I restoration at the Florida Institute for Saltwater Heritage (FISH) Preserve continues. Exotic vegetation removal was funded by Ocean Trust and has significantly reduced survey costs. Committed restoration funds total approximately \$80,000 from Ocean Trust and the US

hours to the restoration of our marine and estuarine systems here in Florida. Thank you Rick, Bay Buddies and Reef Rakers for all of your hard work and congratulations on this award!

Regards,

Mark Alderson
SBEP Director

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Fish and Wildlife Service. SBEP is assisting FISH in securing additional funding. SBEP is also working on permit-level plans for the Grassy Point Preserve restoration project. Construction funding sources include Holmes Beach and the US Fish and Wildlife Service. A combination restoration and outreach project to restore the riparian zone of Wares Creek at Ballard Elementary is progressing. The permits for this project were recently approved, and SBEP staff met in September with the various partners to discuss the construction phase.

In Sarasota County the planning for Phase II of the South Lido restoration project continues, and a new US Fish and Wildlife Service grant was recently secured to help fund this project. Final permits for the Roberts Bay Bird Colony Island protection and restoration project are expected to arrive soon.

Additionally, deployment of 270 artificial reef modules at four sites (Silvertooth, Bayshore South, Bulkheads, and SE Tampa Bay) is scheduled to occur in Fall 2006. Mote staff are analyzing data from surveys conducted this year on our created inshore reefs to determine fish utilization patterns. In addition, Mote staff report that juvenile oysters continue to grow on fossilized shell at the oyster enhancement sites at Turtle and White Beach. SBEP is currently exploring locations in Blackburn and Roberts Bays for future oyster enhancement sites.

Outreach

Fall is a great time to bring attention to our nation's estuaries since many people spent the summer enjoying them and kids are back in school. SBEP and its partners had several events in honor of National Estuaries Day on September 30. In cooperation with Sarasota County Water Resources volunteers from Reef Rovers marked stormdrains in the Indian Beach Sapphire Shores Neighborhood. For more information on this event check out the Guest Column written by volunteer Madison Chapman.

In conjunction with two of our sister programs, Tampa

Bay Estuary Program and Charlotte Harbor National Estuary Program, SBEP received a National Estuaries Day Proclamation from both Manatee County Commissioners and Sarasota County Commissioners. Thanks to our CAC member Tommy Vaughan-Birch and volunteers Deborah, Madison and Raven Chapman for receiving those proclamations on behalf of SBEP.

On National Estuaries Day, SBEP partnered with Sarasota Bay Explorers and Mote Aquarium to offer the public discounted tickets to both attractions. This was the sixth consecutive year that SBEP, Sarasota Bay Explorers and Mote Aquarium have teamed up in honor of National Estuaries Day.

Also in honor of National Estuaries Day, SBEP and the Serenoa Chapter of the Florida Native Plant Society sponsored a Florida native plant sale. This successful event was held at Longwood Park and sold 1,018 native plants. SBEP recognizes that planting natives are an important part of protecting Sarasota Bay's watershed.

SBEP also participated in several events this fall including the West Coast Bike Rally in Bradenton, an Ocean Literacy workshop given by Rosie Emery of WGCU (the public broadcasting station at Gulf Coast University in Fort Myers) at the Girl Scouts Council, as well as addressed members of CONA about actions their neighborhoods could take to improve Sarasota Bay and it's watershed. SBEP is also collaborating with Sarasota County Openly Plans for Excellence, better known as SCOPE, on their new Community Report Card.

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Guest Column

STORM DRAIN MARKING

By Madison N. Chapman

Storm drains are supposed to collect rainwater, but they have become a haven for bacteria, chemicals and harmful litter. Many people are oblivious to the repercussions of leaving dog waste on lawns, which

washes into stormdrains, or pouring old car oil down the stormdrain. Stormwater pollution is a major problem; not only does it kill wildlife, but contaminants can also disrupt ecosystems.

Stormwater deposits 80-95% of the heavy metals that reach Florida's waterways (www.coastalamerica.gov). Nutrients, such as nitrogen, also are constantly being flushed straight into Sarasota Bay. You can find nitrogen in fertilizers, animal waste, sewage and auto emission. This damaging chemical robs the water of oxygen and encourages algae growth which can cloud the water and prevent sunlight from reaching valuable seagrasses. Runoff containing fertilizers, herbicides and pesticides is another big problem. With a good rain shower, anything that you put on your lawn is going to wash directly into the stormdrain and end up in Sarasota Bay, polluting the waters that thousands of species and our community depend on.

The Reef Rovers 4H club recently participated in a storm drain marking in the Indian Beach-Sapphire Shores neighborhood. Thirteen members of this conservation club showed up and marked 100 storm drains with plaques reading "No Dumping. This Drains to Sarasota Bay. Keep Our Waters Clean." By investing just a few hours, the Reef Rovers discouraged people from pouring or dumping garbage down these drains. Marking storm drains was a simple task, earning the teen members of the club community service hours, and it left all of the volunteers with a feeling of accomplishment and community pride.

You don't have to be a Reef Rover to help the Sarasota Bay Estuary Program with its storm drain-marking program. Homeowners Associations, youth groups and other community organizations can participate as well. Storm drain markers are an easy, but effective way of educating people about stormwater pollution.

Another way to keep your storm drains from becoming an outpost of bacteria is to keep it clear of debris and animal waste. If you see cans, bottles, plastic wrappers or other litter, pick them up so they don't end up in a

place they do not belong – in our waterways. Whatever goes down the storm drain, goes to the bay and whatever goes into the bay, is going to be part of the water you swim in.

To find out more about how YOU can participate in a storm drain marking, contact Julia Burch of the Sarasota Bay Estuary Program (SBEP) at 941.955.8085. Or, you can e-mail her at julia@sarasotabay.org.

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