

HEALTHY PONDS

RESOURCES



Get Started with Stormwater Ponds

Facts, guides, frequently asked questions, designs, case studies, & contacts

Resources for Stormwater Ponds

UF/IFAS Extension Manatee County
FAQs, designs, plant selection, pond assessments, grants, maintenance, news, contacts, and funding



NEST

Sarasota County Neighborhood Environmental Stewardship Team
Healthy Ponds Guide, case studies, contacts, resources and funding for watershed-enhancing projects



FAQs About Stormwater Ponds

UF/IFAS Extension Manatee County
Function, benefits, common problems, and maintenance tips



HOA Success Stories

Science and Environment Council
Case studies from local neighborhood pond projects, advice, photos/videos, reports, and discussion group



Funding

For ponds and other water quality projects

Neighborhood Initiative Grant Program

Sarasota County Neighborhood Services

Up to \$10,000 for projects related to environment, health, safety, leadership, and character



RainCheck

Sarasota County

Up to a \$5,000 rebate for features that improve water quality - pervious pavement, bioswales, and rain gardens



Bay Partners Grants

Sarasota Bay Estuary Program

Up to \$10,000 for projects that improve habitat, water quality, education, and environmental stewardship





Beyond the Pond

Resources for stewardship in your community

Green Living Toolkit

Science and Environment Council

Guides, tools, contacts, case studies, and funding for stormwater pond and landscape improvements



Community Resources

Sarasota County Water Atlas

10 ways to improve water quality in your community



Flood Protection

Sarasota County Water Atlas

Find your flood hazard, flood maps, workshops, tips for prevention, and news sign up



Eyes on the Suncoast

Suncoast Waterkeeper

Report pollution, spills, and environmental concerns



Contact the Neighborhood Environmental Stewardship Team for more information or to schedule a healthy pond consultation: nest@scgov.net

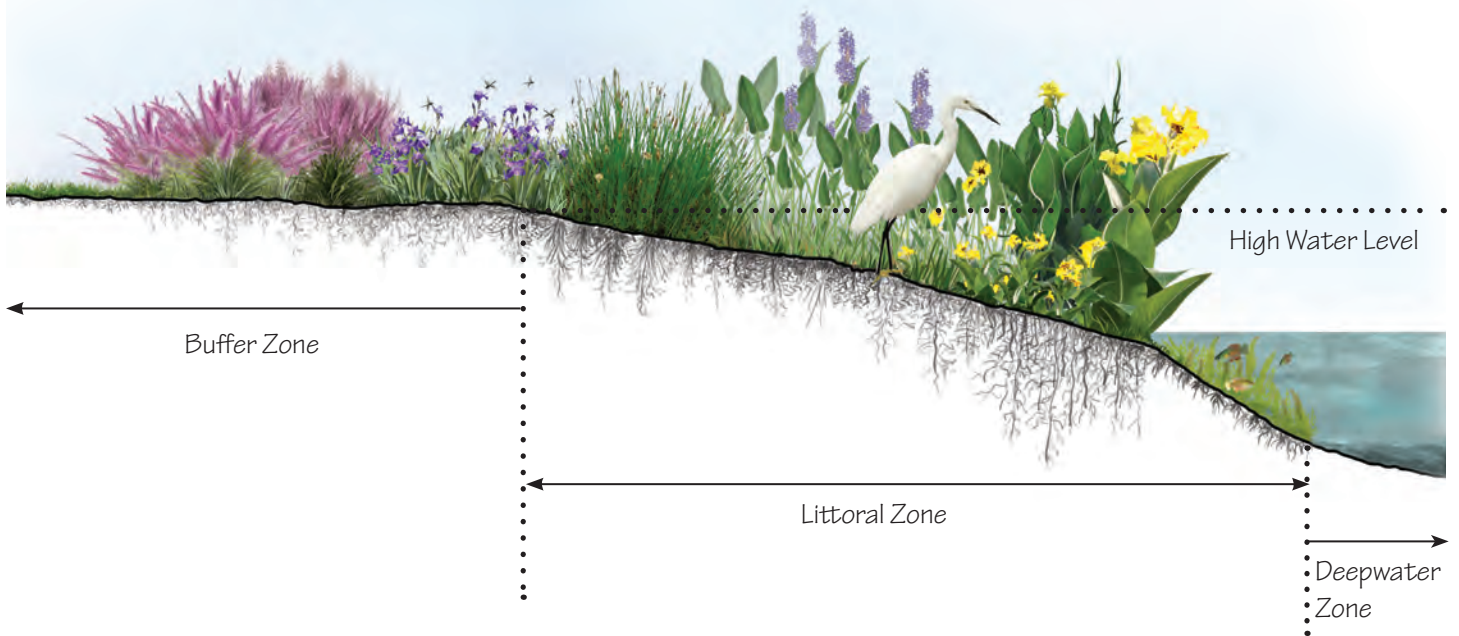


HEALTHY PONDS CONTACT LIST

We are thrilled to host you at the All Neighborhoods Healthy Ponds Workshop, but this is not a "one and done" event. These environmental professionals are ready to support you throughout the year. The following list of local Government agencies and non-profit organizations can offer education and support for water quality improvement projects in your neighborhood.

Sarasota County Stormwater		NEST Coordinator	941-861-NEST (6378)	nest@scgov.net
Sarasota County Stormwater	Kayla Quinn	Outreach and Data Coordinator	941-861-0940	kquinn@scgov.net
Sarasota County Neighborhood Services	Erin Sommerville	Neighborhood Services Outreach Specialist	941-861-5000	ESommerville@SCgov.net
Sarasota County Stormwater	Noah Taylor	Community Rating System Coordinator	941-861-0917	ntaylor@scgov.net
Charlotte County Water	Mollie Holland	Environmental and Community Resiliency Coordinator	941-743-1274	mollie.holland@charlottecountyfl.gov
Sarasota Bay Estuary Program	Megan Barry	Public Outreach Manager	941-955-8085	megan@sarasotabay.org
Coastal & Heartland National Estuary Partnership	Andrea Vale	Conservation Specialist	941-833-6580	avale@chnep.org
Suncoast Waterkeeper	Abbey Tyrna	Executive Director	239-222-2443	executivedirector@suncoastwaterkeeper.org
Solutions To Avoid Red Tide (START)	Sandy Gilbert Lonnie Ready	CEO & Founder Healthy Pond Collaborative	941-217-5151 803-873-7360	sandem133@aol.com laready@earthlink.net
UF/IFAS Extension Manatee County	Michelle Atkinson	Environmental Horticulture Agent	941-722-4524 ext1818	michelleatkinson@ufl.edu
UF/IFAS Extension Sarasota County	Michale D'Imperio	Water Resources Agent	941-861-9818	mdimperio@ufl.edu
UF/IFAS Extension Sarasota County	Jackie Leboutz	Chemicals in the Environment Agent	941-315-5066	jleboutz@ufl.edu
UF/IFAS Extension Sarasota County	Forest Hecker	Florida-Friendly Landscaping Agent	941-861-9812	fhecker@scgov.net
UF/IFAS Extension Sarasota County	Ashley Ellis	Residential Horticulture Agent	941-861-9826	ellis.amae@ufl.edu
UF/IFAS Extension Sarasota County	Katherine Clements	Ecology & Natural Resources Educator	941-861-9822	kclements@scgov.net
Florida Sea Grant	Armando Ubeda	Florida Sea Grant Agent	941-861-9900	aubeda@ufl.edu
Lee County Hyacinth Control District	Ernesto Lasso De La Vega	Pond Watch Coordinator	239-694-2174	lassodelavega@lchcd.org

You can continue to discuss ideas and experiences neighbor to neighbor via the HOA Waters google group. Join the discussion group by sending an email to hoawaters+subscribe@googlegroups.com. You can unsubscribe at any time by sending an email to hoawaters+unsubscribe@googlegroups.com.



HEALTHY PONDS GUIDE SPOTLIGHT ON:

Pond Anatomy & Planting

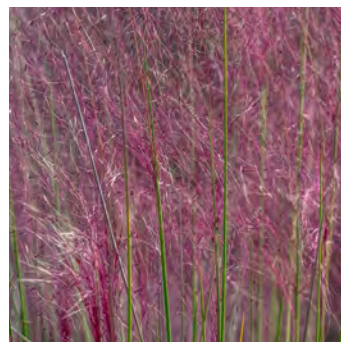
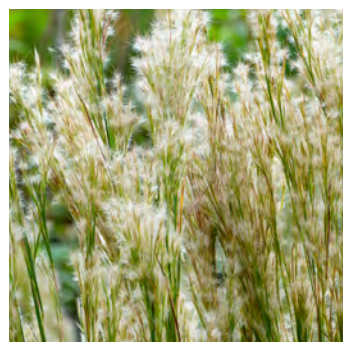
Stormwater ponds are engineered to imitate natural processes for capturing and cleaning water. Three pond zones exist at different water levels and work together to prevent erosion, filter sediment, and reduce nutrients.

The highest **buffer zone** runs around the perimeter of the pond between the littoral zone and the surrounding landscape. Buffer zones should occupy at least three feet (ideally ten feet) of the pond perimeter to protect the shoreline from upland activities such as mowing that can cause erosion or compaction and loss of vegetation.

The middle **littoral zone** includes the shoreline and shallow area of the pond—waters generally less than

five feet deep where enough sunlight penetrates to support wetland and aquatic plants. Just like Florida wetlands, this area can be fully submerged in the rainy season or dry and exposed during droughts.

The lowest **deepwater zone** holds a minimum pool of water year-round. With rainfall, additional stormwater flows in, mixes with the permanent pool, and flows out of the pond after rain events.



Top: Pond zones | MD. Asifur Rahman & David Shafer; Bottom left to right: Buffer zone plants can include blue porterweed (Mir Wanto/Adobe Stock), bushy bluestem (Sunshower Shots/Adobe Stock), muhly grass (Danita Delimont/Adobe Stock), and blueflag iris (Tungalag/Adobe Stock).



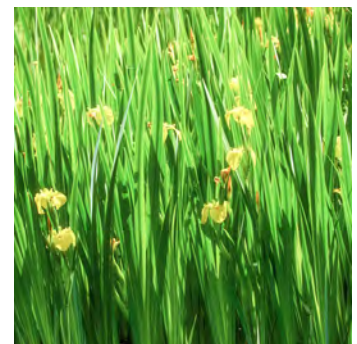
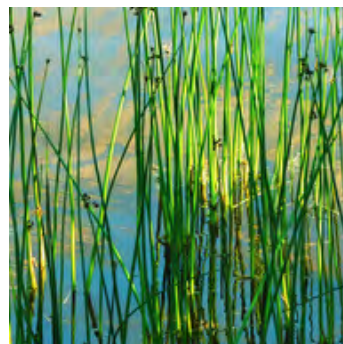
A grassy no-mow zone around a pond at Rivendell, Sarasota Florida (*David Shafer*) and a thriving littoral zone in a pond at Stoneybrook Golf and Countryclub, Sarasota, Florida (*Forest Crooke*).

Buffer zones, also known as no-mow zones, are grassy or planted areas that provide multiple functions according to their design. They secure pond shorelines from many of the major causes of erosion by locking in the soils with plant roots and limiting compaction from heavy lawn mowers.

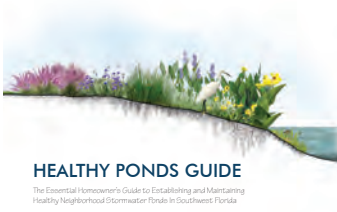
GOOD buffer zones rely primarily on a grass strip that is at least 3 feet wide and 8–12 inches tall. BETTER buffer zones have native bunch grasses, shrubs, and/or trees. BEST buffer zones are wider with high native plant diversity, including shrubs and trees. Selecting Florida native plants means that they are adapted to Florida’s climate conditions and soils. Buffer zones should NEVER receive fertilizer applications due to their proximity to the water and the risk of nutrient pollution.

Littoral zones benefit from a diversity of plants to reduce pollution. When selecting plants for the littoral zone, consider water depth, mature plant height, and specific site characteristics.

Plants have different functions and benefits based on whether they are emergent (sticking up out of the water), submerged (entirely under the water), or floating. Having all three types can help achieve the optimal 100% plant coverage in the littoral zone. Choosing multiple species of plants that flourish at different times of the year will add to the year-round aesthetics of the pond. It will also protect against loss of the entire littoral zone if any one species is impacted by species-specific damage from insects, diseases, or other disturbances.



Left to right: Littoral zone plants can include duck potato (*Netsuthep/Adobe Stock*), spkerush (*Svetlana Sukhorukova*), pickerel weed (*Gert-Jan von Vliet/Adobe Stock*), and golden canna (*Cagkan/Adobe Stock*).



Information herein is adapted from the 2025 *Healthy Ponds Guide*, available as a pdf at www.healthyponds.org. The Guide was developed as part of the Healthy Pond Collaborative with grant support from the Charles & Margery Barancik Foundation.

Tyrna, A, M Atkinson, M Holland, A Yasalonis, J Schelb, and J Lebouitz. 2025. *Healthy Ponds Guide*. Second Edition. Edited by J Shafer and D Shafer for the Healthy Ponds Collaborative, Florida. 61 pp.

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HEALTHY PONDS GUIDE SPOTLIGHT ON:

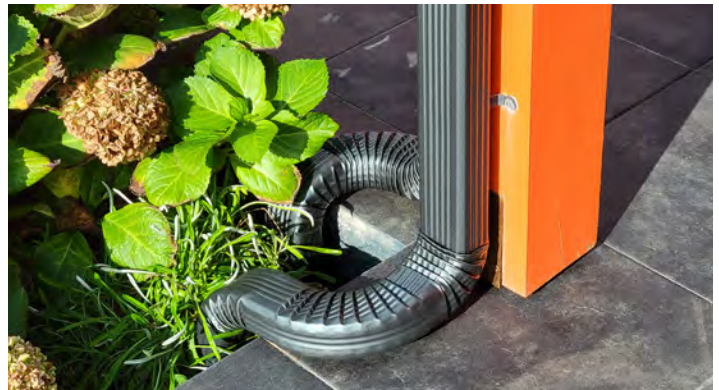
Managing Stormwater Onsite

Did you know that one inch of rainfall on a 1,500-square-foot roof generates nearly 1,000 gallons of runoff? The rapid flow of stormwater from our homes through downspouts and swales can cause pond shorelines to erode and collapse—a serious and expensive maintenance issue for the pond. Fortunately, there are effective ways to slow the flow of stormwater to minimize erosion. Leading solutions include maintaining and diverting downspouts and maintaining rain gardens and swales.

Downspouts

Semi-annual inspection and maintenance of residential downspouts can ensure the flow of roof water is controlled and percolated into the ground onsite, rather than running off into the stormwater system. Downspouts located in the front of a house that direct water to the driveway or walkway allow stormwater to

flow directly to the stormwater system without being filtered and treated by the lawn or plant beds. Instead, a simple solution is to reroute the downspout to your lawn or plant beds and slow down the flow using rain chains, diffusers, and rain gardens (see examples on back). This practice reduces the potential for erosion and improves water quality by filtering stormwater through vegetation.



Top: A stormwater pond at Winwood, Sarasota, Florida; Bottom: Reroute your spout from impervious surfaces like your driveway (left) to pervious (right) surfaces like your lawn or plant beds | *David Shafer.*

Swales

Swales are shallow channels in the landscape that are engineered to drain, slow, and treat stormwater. Vegetated swales are one of the most effective tools to treat stormwater runoff from roadways, driveways, parking lots, and other hardened surfaces.

Swales collect and direct rainwater off property and roads to prevent flooding, slowly conveying that stormwater to canals, ponds, streams and, ultimately, the bay. They slow the flow of stormwater to allow water to soak into the ground en route to ponds, reducing overall stormwater discharge. By slowing flow, swales allow sediment and pollution to settle out of the water, so treatment is provided before the water is conveyed to a pond or other waterway.

Residential developments often have swales constructed between homes or along streets. Modifying a swale (by paving it over or filling it in) or neglecting maintenance can make drainage problems worse and impact pond health, especially if it's happening on multiple properties throughout the neighborhood. Avoid applying pesticides or fertilizers in the swale, as these will flow with water into connected ponds.

Rain Gardens

Low areas between homes where several downspouts come together can be hotspots for erosion. The concentrated discharge can cause erosion along the flow path, damage the pond shoreline, and release sediments into the pond. Installing a rain garden where downspout flows converge slows down stormwater and allows plants to absorb pollutants, reducing erosion and improving pond health.

Rain gardens can be beautiful additions to your landscape and provide habitat for birds, butterflies, and mosquito-eating dragonflies.

Designing and installing a rain garden is a rewarding DIY project, but takes planning to ensure the size, placement, and selection of plants are matched to site conditions.

Consult the Resources section of the Healthy Ponds Guide for a step-by-step guide providing the tools and guidance to install and maintain a functional and beautiful Florida rain garden.



Replace your downspout with a rain chain (*David Shafer*) or diffuser (*Amerimax Home Products*) to slow down flow and reduce erosion. A rain garden (*UF/IFAS*) can collect downspout water, reduce erosion, and allow water to percolate into soils. Be sure to direct water away from the foundation of any building.



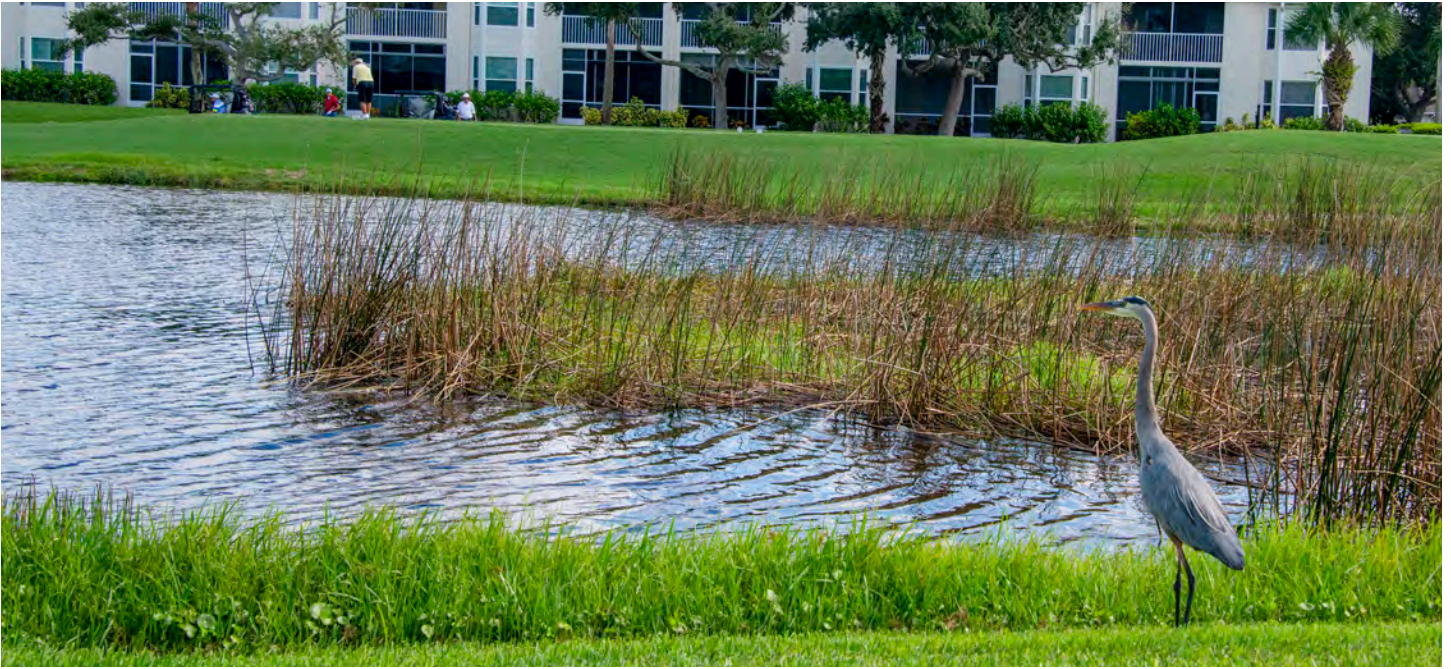
HEALTHY PONDS GUIDE
The Essential Homeowner's Guide to Establishing and Maintaining
Healthy Neighborhood Stormwater Runoff in Southeast Florida

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HEALTHY PONDS GUIDE SPOTLIGHT ON:

Managing Nutrient Pollution

Nutrient pollution can trigger algal blooms—fouling ponds, creeks, canals, and bays and killing fish and wildlife. Because existing stormwater pond designs are only about 40% effective at nitrogen removal and 69% effective at phosphorus removal, pollution prevention is essential. Leading sources of nutrients in ponds include reclaimed irrigation water, fertilizer, and landscape debris.

Offset Nutrients in Irrigation Water

Reclaimed irrigation water—the water from the purple pipes—is derived from treated wastewater, so it can contain high levels of nutrients. In fact, reclaimed water can provide enough nitrogen for most Florida lawns and landscapes to thrive without additional fertilizer application. Because of the environmental impact of nitrogen in reclaimed water, Sarasota County is upgrading their wastewater treatment facilities to Advanced Wastewater Treatment (AWT), which removes most of the nitrogen. If your reclaimed irrigation

water comes from an AWT system, it is okay to use nitrogen-based fertilizers if needed, according to local regulations. If not, then you must reduce your fertilizer application accordingly to avoid over-fertilizing and contributing to nutrient pollution.

How much should you cut back on fertilizer? Sarasota County residents can use an online calculator developed by UF/IFAS Extension Sarasota County to find out how much nitrogen is applied to their landscape with use of reclaimed irrigation water. A link to the innovative calculator can be accessed at www.healthyponds.org.



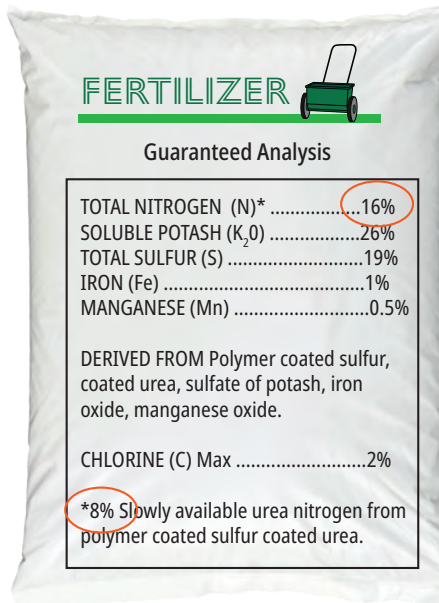
Top: A great blue heron admires a stormwater pond at Stoneybrook Golf and Country Club, Sarasota FL; Bottom: Reclaimed irrigation water from purple pipes may be high in nutrients | *David Shafer*.

Protect Ponds from Fertilizer

Follow these steps to avoid making the three biggest fertilizing mistakes that waste money and pollute ponds: applying *too much* of the *wrong type* at the *wrong time*.

Step 1. Select the Right Type.

Test soils for nutrient deficiencies first before selecting and applying fertilizer. Because it is naturally abundant in Southwest Florida soils, phosphorus application is never recommended unless soil testing indicates a deficiency. Choose the correct fertilizer for the target plant that contains slow-release formulas, which are longer-lasting, less likely to burn, and less likely to leach out of soils and into runoff. Consider using organic products that build soil health, such as compost.



Calculate the percentage of nitrogen in fertilizer that is slow-release by dividing slowly released nitrogen by total nitrogen and multiplying by 100%. In this example: $8/16 \times 100\% = 50\%$ | David Shafer.

Step 2. Apply at the Right Time. In Sarasota County, a summer blackout period prohibits the application of all fertilizers containing nitrogen or phosphorus between June 1 and September 30 and requires the use of at least 50 percent slow-release formulas the rest of the year. The best time to fertilize is when the plants are actively growing outside of the blackout period. In Southwest Florida, that time is April–May and/or October–November. Never fertilize when rain is forecasted.

Step 3. Use the Right Amount. Don't simply use the whole bag. Consult www.healthyponds.org for video instructions and calculators.

Florida-Friendly Landscaping™ practices recommend replacing high-maintenance turf grass with low-maintenance, water-saving landscaped beds and groundcovers.



Cleaning up fallen leaves, seeds, and acorns before they run off into ponds, swales, and waterways is an easy way to reduce nutrient loading | Mollie Holland.

Manage Landscape Debris

Decaying leaves and grass clippings release loads of nutrients. Ensuring that landscape management plans include the proper collection and handling of landscape debris will keep nutrients out of ponds.

Step 1. Regular cleanup of fallen leaves and acorns around the pond and within the pond watershed is essential for healthy pond management.

Step 2. Lawn clippings, leaves, and landscape cuttings should be mulched and recycled back into the lawn or landscape or bagged for yard waste pickup. Escaped clippings should be blown back into the yard where they can decompose and provide nutrients to the soil and grass.



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