

# 2022 STORMWATER CALENDAR



# THE WORLD GAMES

## JULY 7 - 17, 2022

## JEFFERSON COUNTY, ALABAMA MAJOR CREEKS AND SIGNIFICANT WATERSHEDS

BASINS and WATERSHEDS are interchangeable terms. They are an area of land in which the elevation causes water to flow to a common waterway. They do not follow state or municipal boundaries. Instead, they are defined by mountain ridges and valleys.

TOMBIGBEE WATERSHED

BLACK WARRIOR WATERSHED

JEFFERSON COUNTY, AL

CAHABA RIVER WATERSHED

ALABAMA RIVER WATERSHED

MOBILE RIVER WATERSHED

MOBILE BAY BASIN & WATERSHEDS

The maps displayed on this page have been prepared by Jefferson County Department of Development Services. Any use of these maps shall be at the sole risk of the person or entity using them. Jefferson County makes no warranty, expressed or implied, as to the accuracy of the information represented herein. Source: Alabama Water Watch; Black Warrior River Watershed Management Plan; and United States Geological Survey's National Hydrography Dataset and Watershed Boundary Dataset

The black arrows are to show the direction that the water is flowing in the creeks and rivers.

### Threats to Watersheds and Waterways

Clean water in our local rivers, creeks, lakes, and streams is important to human, animal, and environmental health. In a natural environment, rainwater has many opportunities to sink into the ground or slowly flow into a waterbody. Because we have built more and more roads, homes, and businesses over the years, rainwater has fewer chances to infiltrate. All of these hard surfaces cause large amounts of rainwater to run off very quickly, often overwhelming our current drainage system, and causing flooding and stream bank erosion. Installing practices in your yard that emphasize water conservation and the use of various features to collect, store and filter the rain into the ground will reduce the volume (amount) and velocity (speed) of rainwater that enters our streams. These practices, often called Low Impact Development / Green Infrastructure (LID/GI), can assist in reducing the amount of stormwater leaving a site, thereby helping prevent polluted runoff.

Alabama establishes levels for the maximum amount of pollutants that can enter each waterbody based on the use of the stream. This is done by the Water Quality Branch of the Alabama Department of Environmental Management (ADEM). Local Stormwater Program staff then monitor these water bodies to ensure that they do not exceed the maximum level set. If they do, measures are taken to identify the source of the pollutant and reduce or eliminate it. Each local Stormwater Program operates under an individualized National Pollutant Discharge Elimination System (NPDES) Stormwater Permit issued by ADEM. Contact information for the local Stormwater Programs in Jefferson County, along with other state and local agencies that help protect water quality, is listed in the box to the right and contained in a Jefferson County Environmental Community Resource Booklet which can be downloaded from [www.jccal.org/dsStormwater](http://www.jccal.org/dsStormwater).

### Water Resources and Contacts

- ADEM** [adem.state.al.us](http://adem.state.al.us); 334-260-4501  
Statewide agency that administers the Municipal NPDES Stormwater Permit to local jurisdictions.
- Alabama Water Watch** [alabamawaterwatch.org](http://alabamawaterwatch.org)  
Statewide citizen-based water monitoring program.
- Alabama Rivers Alliance** [alabamarivers.org](http://alabamarivers.org)  
Statewide network of groups working to protect and restore all of Alabama's water resources.
- Black Warrior Riverkeeper** [blackwarriorriver.org](http://blackwarriorriver.org)  
Organization dedicated to promoting clean water throughout the Black Warrior River watershed.
- Cahaba River Society** [cahabariversociety.org](http://cahabariversociety.org)  
Organization working to protect and restore the Cahaba River watershed and its rich diversity of life.
- Cahaba Riverkeeper** [cahabariverkeeper.org](http://cahabariverkeeper.org)  
Organization dedicated to the protection and ecological integrity of the Cahaba watershed.
- City of Bessemer Stormwater Program**  
[bessemeral.org/stormwater](http://bessemeral.org/stormwater); 205-424-4060
- City of Birmingham Stormwater Program**  
[birminghamal.gov/stormwatermanagement](http://birminghamal.gov/stormwatermanagement); 205-254-7771
- City of Leeds Stormwater Program**  
[leedsalabama.org/storm-water](http://leedsalabama.org/storm-water); 205-699-2585
- City of Hoover Stormwater Program**  
[hooveral.org/631/Stormwater-Management](http://hooveral.org/631/Stormwater-Management); 205-739-6888
- Freshwater Land Trust** [freshwaterlandtrust.org](http://freshwaterlandtrust.org)  
Organization that conserves, connects, and cares for land and water in Central Alabama.
- Friends of Shades Creek** [shadescreek.org](http://shadescreek.org)  
Organization working for the protection of, and responsible development along, Shades Creek.
- Jefferson County Conservation District**  
[jeffersonco.wixsite.com/jeffersonswcd](http://jeffersonco.wixsite.com/jeffersonswcd)  
Organization providing service, leadership, and assistance for the wise use, conservation, and development of natural resources.
- Jefferson County Department of Health Watershed Protection Program / SWMA** 205-930-1999  
[jcdh.org](http://jcdh.org) (search watershed protection program)
- Jefferson County Stormwater Program**  
[www.jccal.org/dsStormwater](http://www.jccal.org/dsStormwater); 205-325-8741
- Village Creek Society, Inc.** [villagecreeksociety.org](http://villagecreeksociety.org)  
Organization that seeks to improve Village Creek.

Stormwater pollution has a negative effect on water quality. It kills wildlife and habitat, degrades our drinking water, looks bad and smells even worse. The good news is that stormwater pollution can be prevented.



Sweep up excess yard chemicals.



Fix and repair vehicle leaks.



Never toss anything out of windows.



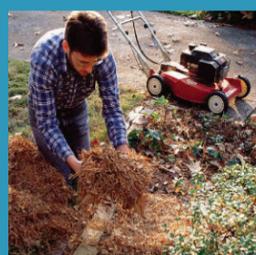
Pick up and dispose of pet waste.



Recycle used cooking oil.



Secure loose items before driving.



Cover bare soil to prevent erosion.



Read and follow label directions.

# STORMWATER RUNOFF

Where exactly does your rain go after it leaves your roof? Next time it rains, grab an umbrella and take a walk. Watch where the rain goes. Does it soak into the ground from your downspout? Does it run down your driveway into the street? From the street, does it enter a storm drain or open ditch? Does the ditch drain into an open channel? Have you ever seen rain washing from an open pipe (outfall) into a local creek or stream?

Most people have never taken the time to find out where their rainwater goes after it falls on their roof, yet stormwater runoff is the largest threat to our nation's waterways. We are blessed in Alabama with an average annual rainfall of 55 inches a year. Having (and keeping) our waterways clean is super important to our economy, our health and wildlife. With development, we have built more roads, homes, and businesses which have changed the natural environment resulting in large amounts of rainwater moving very quickly across hard surfaces. Fast moving stormwater can pick up many pollutants from the ground including motor oil, fertilizers, pesticides, eroded soil, pet waste, and litter.

**Takeaway:** You can help reduce flooding, consider doing a few things at your home to reduce the amount of runoff that leaves your property.



**Help protect our creeks from pollution and reduce the amount of runoff that leaves your property.**

To report a sanitary sewer overflow call 205-942-0681.

Within unincorporated Jefferson County call 205-325-5792 to report suspected water pollution; call 205-582-6555 to report illegal dumping. Within the City of Birmingham, call 311. For all other municipalities, call your local city hall.

# JANUARY 2022

THIS MONTH RESOLVE TO MAKE ONE CHANGE THIS YEAR TO HELP IMPROVE WATER QUALITY!

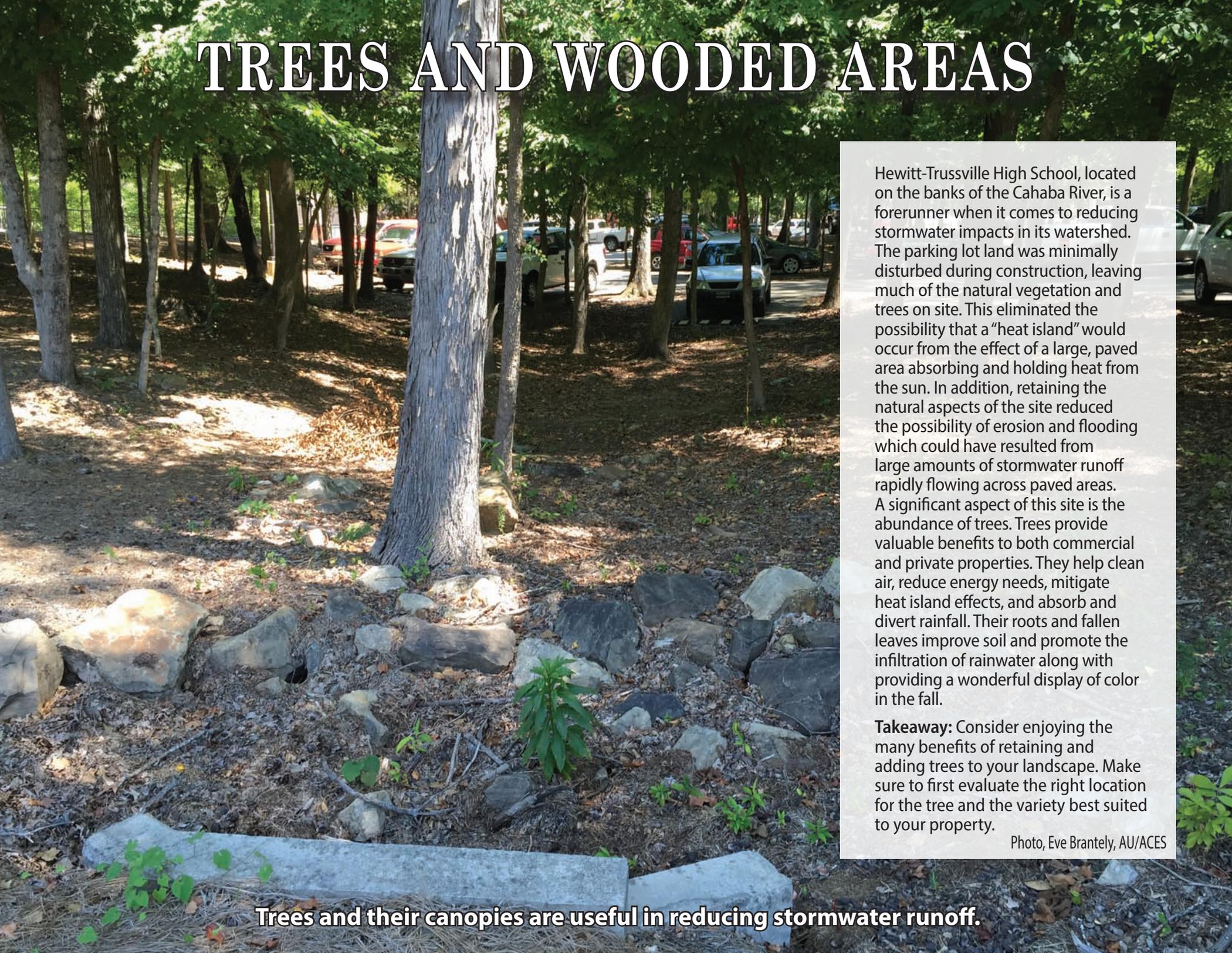
January is a good month to ensure your vehicle and gas powered lawn equipment are in good working order. Oil and other petroleum products are toxic to fish and other animals that live in our creeks and streams.

If you do notice a spill or leak, please quickly and efficiently soak it up by sprinkling absorbent material such as cat litter over the spill. Once the spill is absorbed, sweep it up and properly dispose of the material according to the product label.

| SUNDAY | MONDAY                           | TUESDAY | WEDNESDAY  | THURSDAY | FRIDAY | SATURDAY            |
|--------|----------------------------------|---------|--|----------|--------|---------------------|
|        |                                  |         |  |          |        | 1<br>New Year's Day |
| 2      | 3                                | 4       | 5  | 6        | 7      | 8                   |
| 9      | 10                               | 11      | 12   | 13       | 14     | 15                  |
| 16     | 17<br>Martin Luther King Jr. Day | 18      | 19   | 20       | 21     | 22                  |
| 23     | 24                               | 25      | 26   | 27       | 28     | 29                  |
| 30     | 31                               |         | SPECIAL EVENTS:<br>This month is the Salamander Festival; visit <a href="http://shadescreek.org">shadescreek.org</a> for details!<br>Recycle your Christmas trees at the Birmingham Zoo.<br>Participate in a MLK Day of Service Litter Clean-Up; visit <a href="http://jccal.org">jccal.org</a> for details! |          |        |                     |



# TREES AND WOODED AREAS



Hewitt-Trussville High School, located on the banks of the Cahaba River, is a forerunner when it comes to reducing stormwater impacts in its watershed. The parking lot land was minimally disturbed during construction, leaving much of the natural vegetation and trees on site. This eliminated the possibility that a “heat island” would occur from the effect of a large, paved area absorbing and holding heat from the sun. In addition, retaining the natural aspects of the site reduced the possibility of erosion and flooding which could have resulted from large amounts of stormwater runoff rapidly flowing across paved areas. A significant aspect of this site is the abundance of trees. Trees provide valuable benefits to both commercial and private properties. They help clean air, reduce energy needs, mitigate heat island effects, and absorb and divert rainfall. Their roots and fallen leaves improve soil and promote the infiltration of rainwater along with providing a wonderful display of color in the fall.

**Takeaway:** Consider enjoying the many benefits of retaining and adding trees to your landscape. Make sure to first evaluate the right location for the tree and the variety best suited to your property.

Photo, Eve Brantely, AU/ACES

**Trees and their canopies are useful in reducing stormwater runoff.**

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# FEBRUARY 2022

SHOW YOUR WATERSHED SOME LOVE THIS MONTH, LEARN HOW TO IDENTIFY AND REPORT WATER POLLUTION!

Exposed dirt is carried by rain to our creeks and rivers. It settles out on the bottom where it can smother fish and other animals as well as fill in the creek channel bottom. When this happens, there isn't enough room for the rainwater and may cause flooding to occur. An easy solution is to cover dirt piles and bare soil in your landscape with tarps and mulch to prevent erosion.

Properly dispose of used wash water. NEVER pour any liquid waste down a storm drain or in a roadside gutter or ditch.

| SUNDAY  | MONDAY                | TUESDAY | WEDNESDAY   | THURSDAY | FRIDAY | SATURDAY |
|---|-----------------------|---------|---|----------|--------|----------|
|   |                       | 1       | 2<br>Groundhog Day  | 3        | 4      | 5        |
| 6   | 7                     | 8       | 9   | 10       | 11     | 12       |
| 13  | 14<br>Valentine's Day | 15      | 16  | 17       | 18     | 19       |
| 20  | 21<br>Presidents Day  | 22      | 23  | 24       | 25     | 26       |
| 27  | 28                    |         |   |          |        |          |
| Trees are beneficial in reducing Stormwater Runoff. Celebrate Alabama Arbor Week between February 21-27 and plant a tree! |                       |         | SPECIAL EVENTS:<br>Register your community to participate in the Spring Clean-Up through the Alabama People Against a Littered State; call 325-8741 for more information. |          |        |          |



# HARVESTING STORMWATER



The Birmingham Zoo is a well-known and frequently visited venue in the Birmingham area. The Zoo is a leader when it comes to managing the stormwater that falls on its property, and this designation serves a necessary purpose given the Zoo property is located on a major tributary to Shades Creek in an area which is prone to flooding. Cisterns and other systems installed on the Zoo property collect and store rainwater, thereby preventing stormwater runoff that would contribute to flooding. Cisterns are large rainwater storage systems that can be installed above or below the ground. The one pictured collects rainwater that falls on the roof of the main building. It can hold several thousands of gallons of rainwater, and prevents this rainwater from traveling across the adjacent parking lot and walkways to become runoff. The rainwater stored in the cistern is used by the Zoo staff to irrigate the landscape plants that surround the main building.

**Takeaway:** Installing rain barrels or other devices to capture and store rainwater flowing from your roof reduces stormwater runoff and flooding while providing a free source of water to irrigate your landscape.

Photo, The Birmingham Zoo

**Capturing stormwater reduces the amount of runoff that leaves your property.**

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# MARCH 2022

## BE MINDFUL OF YOUR LOCAL CREEK WHEN DOING YOUR SPRING CLEANING THIS MONTH!

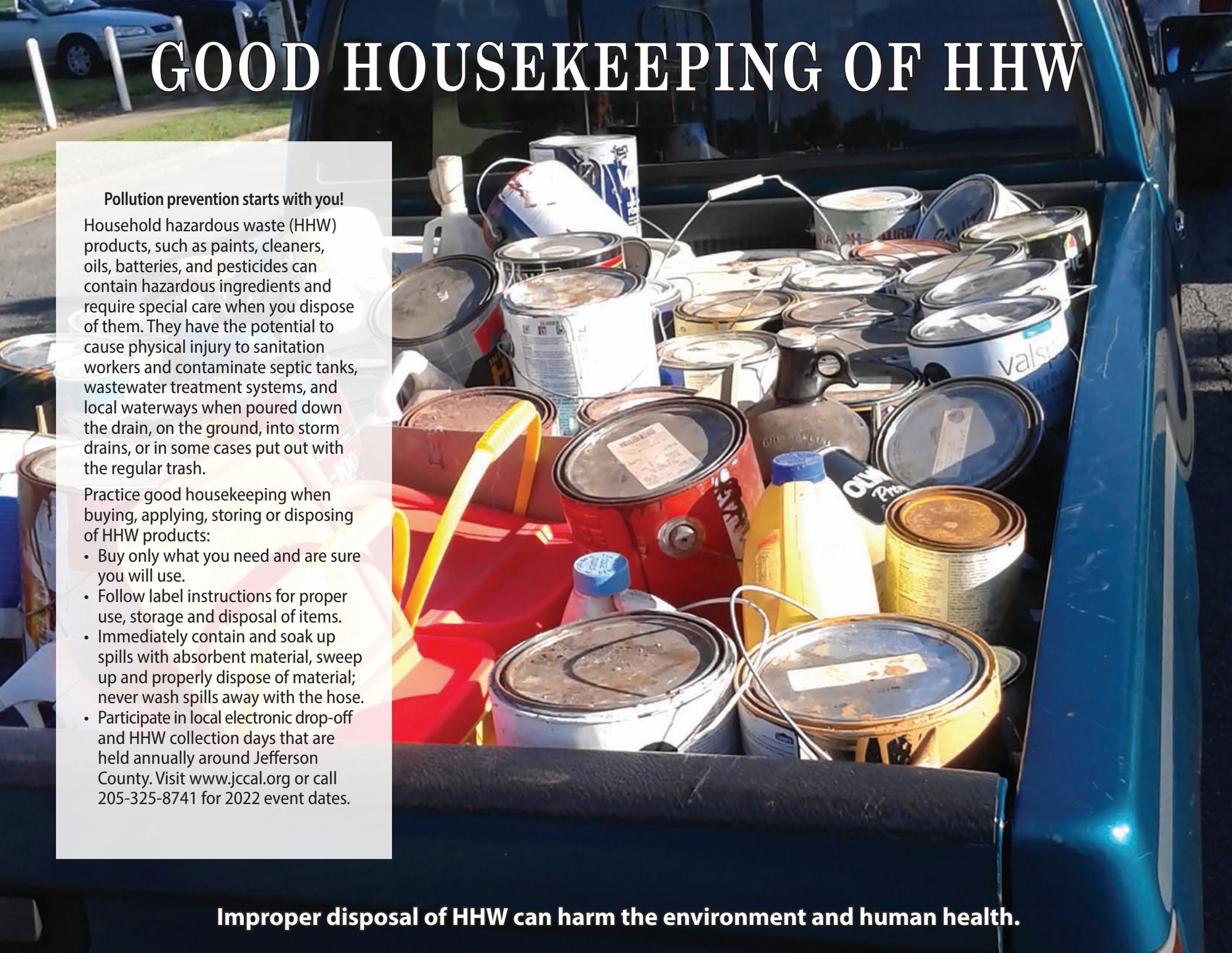
March madness begins when weeds start to invade every area of your landscape from the lawn to the flower beds. The urge to apply herbicides to kill the spring weeds is strong, but use these products sparingly. Since there are so many products to choose from, it is best to identify what type of weeds you have. Once you know what you need to target, look at the product labels to see which ones will do the job.

The label will also tell you the amount of product you will need to apply including the calibration setting for your equipment.

| SUNDAY  | MONDAY | TUESDAY               | WEDNESDAY             | THURSDAY                | FRIDAY  | SATURDAY |
|---|--------|-----------------------|-----------------------|-------------------------|---|----------|
|   |        | 1                     | 2                     | 3                       | 4   | 5        |
| 6   | 7      | 8                     | 9                     | 10                      | 11  | 12       |
| 13<br>Daylight Savings Time Begins  | 14     | 15                    | 16                    | 17<br>St. Patrick's Day | 18  | 19       |
| 20  | 21     | 22<br>World Water Day | 23<br>Lunch and Learn | 24                      | 25<br>Great American Cleanup Begins<br>( <a href="http://www.kab.org">www.kab.org</a> ) | 26       |
| 27  | 28     | 29                    | 30                    | 31                      |   |          |
| <p><b>SPECIAL EVENTS:</b><br/>Participate in the Valley Creek Spring or the Mulga Loop Road Clean-Up; visit <a href="http://jccal.org">jccal.org</a> for details. March kicks off the FREE Lunch and Learn Seminars held at the Birmingham Botanical Gardens; visit <a href="http://bbgardens.org/classes">bbgardens.org/classes</a> for details.</p> |        |                       |                       |                         |   |          |



# GOOD HOUSEKEEPING OF HHW



## Pollution prevention starts with you!

Household hazardous waste (HHW) products, such as paints, cleaners, oils, batteries, and pesticides can contain hazardous ingredients and require special care when you dispose of them. They have the potential to cause physical injury to sanitation workers and contaminate septic tanks, wastewater treatment systems, and local waterways when poured down the drain, on the ground, into storm drains, or in some cases put out with the regular trash.

Practice good housekeeping when buying, applying, storing or disposing of HHW products:

- Buy only what you need and are sure you will use.
- Follow label instructions for proper use, storage and disposal of items.
- Immediately contain and soak up spills with absorbent material, sweep up and properly dispose of material; never wash spills away with the hose.
- Participate in local electronic drop-off and HHW collection days that are held annually around Jefferson County. Visit [www.jccal.org](http://www.jccal.org) or call 205-325-8741 for 2022 event dates.

**Improper disposal of HHW can harm the environment and human health.**

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# APRIL 2022

BE MINDFUL OF THE APRIL SHOWERS THIS MONTH WHEN APPLYING LAWN CHEMICALS, ESPECIALLY FERTILIZERS THAT CONTAIN PHOSPHORUS (P).

Alabama soils naturally contain high levels of P (the middle number on a fertilizer bag). Applying this nutrient that will not be taken up by plants will cause it to be washed by rainwater to the nearest creeks or streams causing algae blooms. Significant increases in algae decrease the oxygen that fish and other aquatic life need to survive.

Save money and the environment; test your soil to find out what type of fertilizer your grass actually needs to be green and healthy. Soil test kits are available at the AL Extension offices, call 205-879-6964 for details.

| SUNDAY   | MONDAY | TUESDAY | WEDNESDAY  | THURSDAY      | FRIDAY   | SATURDAY   |
|--|--------|---------|--|---------------|--|--|
|  |        |         |  |               | 1<br>April Fool's Day                                  | 2  |
| 3  | 4      | 5       | 6<br>Lunch and Learn   | 7             | 8  | 9<br>Household Hazardous Waste Day - 3 locations |
| 10<br>Voting begins for LitterQuitters.org!<br>Palm Sunday | 11     | 12      | 13   | 14<br>Tax Day | 15<br>Good Friday<br>Passover begins at sundown        | 16   |
| 17<br>Easter Sunday  | 18     | 19      | 20<br>Lunch and Learn  | 21            | 22<br>Earth Day<br>Voting ends for LitterQuitters.org! | 23   |
| 24   | 25     | 26      | 27   | 28            | 29<br>National Arbor Day                               | 30   |
|  |        |         | SPECIAL EVENTS:<br>Take advantage of the Birmingham Botanical Garden's Spring Plant Sale and Ruffner Mountain's Native Plant Sale this month!<br>Plan to attend the annual Household Hazardous Waste Day. Visit <a href="http://jcdh.org">jcdh.org</a> . |               |  |  |



# STORMWATER FRIENDLY LANDSCAPING



Stewart/Perry is a construction company with headquarters located in Irondale. This Leadership in Energy and Environmental Design (LEED) certified facility is situated on a 16-acre stormwater friendly campus. The company chose to build this facility to provide a serene atmosphere for its staff and illustrate its desire to be a leader in managing stormwater. The headquarters sits on land which was redeveloped to prevent the destruction of virgin or forested land. The company chose specific plants to help reduce the need for irrigation, installed a rain garden/bioswale to filter the runoff from the parking lot, and used rain chains to direct rainwater into vegetated areas. Pavers were installed on high traffic areas to reduce the potential for erosion, and native plants that are drought tolerant and support wildlife and pollinators were added to the landscape.

**Takeaway:** Using pavers, stone and gravel in your heavy use areas helps break up the speed and flow of the rainwater. Installing native plants which have deep root systems helps stabilize soil so it doesn't wash away, requires less water once established, and supports wildlife and pollinators. Collect and reuse stormwater which helps conserve water resources and reduces runoff.

Photo, Bob Farley/f8Photo

**Stormwater friendly landscapes look nice, support wildlife and reduce water runoff.**

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# MAY 2022

DON'T HARM ALL THE BUGS IN YOUR LANDSCAPE. REMEMBER CATERPILLARS TURN INTO BUTTERFLIES AND BABY BIRDS FEED ON ALL KINDS OF INSECTS!

Not all garden bugs are bad. Some are beneficial and eat bad bugs, others turn into pollinators and all of them are food for baby birds.

If your yard is being overtaken, call the Alabama Extension's local Plant Diagnostic Lab housed at the Birmingham Botanical Gardens. They can help identify what is bugging you along with suggestions to resolve it. Call 205-879-6964.

| SUNDAY            | MONDAY             | TUESDAY | WEDNESDAY   | THURSDAY | FRIDAY | SATURDAY |
|-------------------|--------------------|---------|---|----------|--------|----------|
| 1                 | 2                  | 3       | 4<br>Lunch and Learn  | 5        | 6      | 7        |
| 8<br>Mother's Day | 9                  | 10      | 11  | 12       | 13     | 14       |
| 15                | 16                 | 17      | 18<br>Lunch and Learn   | 19       | 20     | 21       |
| 22                | 23                 | 24      | 25  | 26       | 27     | 28       |
| 29                | 30<br>Memorial Day | 31      |   |          |        |          |
|                   |                    |         | SPECIAL EVENTS:<br>Attend FREE Lunch and Learn Seminars held at the Birmingham Botanical Gardens this month; visit <a href="http://bbgardens.org/classes">bbgardens.org/classes</a> . |          |        |          |



# RAIN BARRELS

When it rains, water can either soak into the ground as it does in undeveloped areas or wash from impervious structures such as rooftops, paved streets, sidewalks, and driveways into the storm drainage system as it does in developed areas. While it is necessary to have impervious structures in our environment, they prevent rainwater from soaking into the ground, add to the flooding in communities, and contribute to the amount of stormwater runoff entering local streams. Installing a rain barrel (or several) into the existing gutter downspout system as shown in the photo is an easy and efficient method to help counteract the issues created by impervious surfaces. Rain barrels reduce stormwater runoff by storing rainwater (which can be used to water the yard and garden during drier times), reduce the cost of irrigating the landscape, conserve tap water, and reduce the amount of pollution entering nearby streams.

**Takeaway:** Reduce stormwater runoff on your property by attending the Rain Barrel Workshop held at the Birmingham Botanical Gardens this month and purchasing a rain barrel (or several) to install at your home.

Photo, Carlos and Gayle Perez



**Rain barrels reduce runoff by capturing and storing rainwater from the roof for later use in the landscape.**

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# JUNE 2022

JUNE IS A PERFECT MONTH TO REDUCE YOUR STORMWATER RUNOFF BY INSTALLING A RAIN BARREL OR A RAIN GARDEN.

When stormwater moves quickly, it does not have an opportunity to filter into the soil. It can pick up many pollutants from the ground including motor oil, fertilizers, eroded soil, sewage, pet waste, and litter.

Large amounts of fast moving stormwater can overwhelm drainage systems. When this occurs, streets flood and stream banks erode. You can capture, hold and allow stormwater to soak into the ground by using a rain barrel, aerating your lawn or installing a rain garden.

| SUNDAY   | MONDAY | TUESDAY | WEDNESDAY   | THURSDAY | FRIDAY | SATURDAY                   |
|--|--------|---------|---|----------|--------|----------------------------|
|  |        |         | 1<br>Lunch and Learn  | 2        | 3      | 4                          |
| 5<br>World Environment Day   | 6      | 7       | 8<br>World Oceans Day   | 9        | 10     | 11                         |
| 12   | 13     | 14      | 15<br>Lunch and Learn   | 16       | 17     | 18<br>Rain Barrel Workshop |
| 19<br>Father's Day<br>Juneteenth<br>Independence Day   | 20     | 21      | 22  | 23       | 24     | 25                         |
| 26   | 27     | 28      | 29<br>Lunch and Learn   | 30       |        |                            |
| The following center page, as well as the first two pages, can be used as posters when you are done with this calendar. Just carefully take out the staples. |        |         | SPECIAL EVENTS:<br>Sign up to attend the Rain Barrel Workshop this month. Barrels are available for purchase; pre-registration with the Birmingham Botanical Gardens is required. Visit <a href="http://bbgardens.org/classes">bbgardens.org/classes</a> for details. |          |        |                            |



# A Path to Cleaner Water

How Investments in America's Water Infrastructure are Protecting Waterways

## Rain gardens

Basins with native plants that collect stormwater before it drains to a sewer or waterway. The garden's plants and soil filter pollutants from stormwater, replenish groundwater, and provide wildlife habitat.

## Updated wastewater treatment systems

"Effective" wastewater treatment is critical to protecting public health and our waterways. Many aging, underfunded treatment systems are experiencing increasing pressure from changing numbers of users, sea level rise, increasing severe storms, and the expense of staying effective while meeting water quality standards.

## Native plants

Plants naturally found in the region and are well adapted to local conditions. They need no fertilizer or pesticides, which can pollute waterways, and their deep root systems slow stormwater runoff, reduce erosion, and absorb pollutants.

## Buffers

Vegetated areas along a waterway's edges with native plants or trees that filter stormwater, reduce erosion, and provide wildlife habitat.

## Wetlands

Either constructed or natural, they store and filter stormwater from the surrounding area before it reaches a sewer or waterway. They reduce flooding, provide wildlife habitat, and can offer community open space.

# PERMEABLE PAVERS

Driveways, walkways, patios, and other areas that are constructed with materials that allow rainwater to soak into the ground (permeable) rather than with materials that prevent rainwater from soaking into the ground (impermeable) help to reduce stormwater runoff. Runoff is a major cause of water pollution in urban areas. When rain falls on roofs, streets and parking lots, it cannot soak into the ground as it should. The resulting runoff can pick up and carry trash, vehicle fluids, and other pollutants into streams, thereby harming water quality. This quickly flowing runoff also can cause flooding. Installing permeable surfaces that allow rainwater to soak into the ground (infiltrate) can be effective where flooding is a problem.

There are many products and materials available including pervious asphalt and concrete, plastic grid pavers, paver stones and pebbles.

**Takeaway:** Using alternatives to traditional paving not only increases rainwater infiltration on your property and reduces runoff and flooding, they also can add visual interest and value to your landscape.

Photo, Keith Rhan

**Permeable pavers trap and slowly release the rainwater into the ground reducing runoff.**

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# JULY 2022

THIS INDEPENDANCE DAY,  
CELEBRATE YOUR RIGHT  
TO CLEAN WATER!

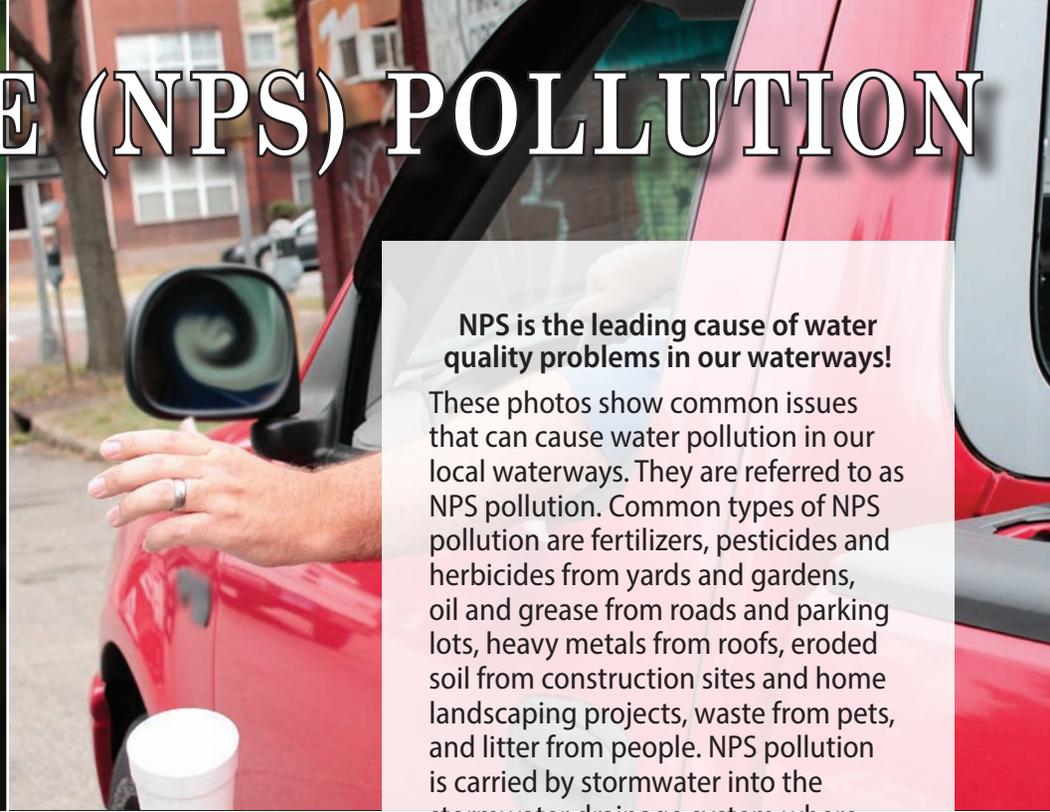
The Clean Water Act and its amendments were enacted to protect the health and safety of Americans. Its primary objective is to restore and maintain the integrity of the nation's waters. It regulates the discharge of pollutants into waterways to achieve water quality standard levels that are fishable and swimmable.

You can get involved in keeping water clean by supporting and participating with your local watershed group. See the calendar insert page for a listing of groups in and around Jefferson County.

| SUNDAY | MONDAY  | TUESDAY | WEDNESDAY   | THURSDAY | FRIDAY | SATURDAY |
|--------|---|---------|---|----------|--------|----------|
|        |   |         |   |          | 1      | 2        |
| 3      | 4<br>Independance Day   | 5       | 6   | 7        | 8      | 9        |
| 10     | 11  | 12      | 13<br>Lunch and Learn   | 14       | 15     | 16       |
| 17     | 18  | 19      | 20  | 21       | 22     | 23       |
| 24     | 25  | 26      | 27<br>Lunch and Learn   | 28       | 29     | 30       |
| 31     | The previous center page and insert pages can be used as posters when you are done with this calendar. Just carefully take out the staples. |         | SPECIAL EVENTS:<br>Attend Float Your Boat Summer Festival this month at Turkey Creek Nature Preserve; visit <a href="http://turkeycreeknp.com">turkeycreeknp.com</a> for details. |          |        |          |



# NON-POINT SOURCE (NPS) POLLUTION



**NPS is the leading cause of water quality problems in our waterways!**

These photos show common issues that can cause water pollution in our local waterways. They are referred to as NPS pollution. Common types of NPS pollution are fertilizers, pesticides and herbicides from yards and gardens, oil and grease from roads and parking lots, heavy metals from roofs, eroded soil from construction sites and home landscaping projects, waste from pets, and litter from people. NPS pollution is carried by stormwater into the stormwater drainage system where it all flows untreated into waterways. NPS, also called polluted runoff, is the biggest threat to our water quality.

You can help reduce NPS and protect local water quality. While your part might seem small, every little bit adds up to make a significant difference.

- Secure items so they don't blow out of vehicles; never toss items out of vehicle windows
- Test your soil before applying yard chemicals; calibrate your spreader; sweep up excess; clean up spills
- Fix and repair vehicle leaks; wash vehicles on grassy areas
- Read and follow all label directions



**Your everyday activities can create NPS pollution.**

To report a sanitary sewer overflow call 205-942-0681.

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# AUGUST 2022

REMIND YOUR KIDS TO NOT LITTER WHEN HEADING BACK TO SCHOOL!

Littering continues to be a major challenge in Jefferson County. Not only is litter unsightly, it also affects the environment. Rain washes litter into creeks and rivers where many residents enjoy boating and fishing, and from where our drinking water supply is drawn.

If you litter, then please stop. Reinforce this message with your family members, especially your teenage kids. There are so many opportunities to get rid of unwanted trash from your car, including trash receptacles at every gas station.

| SUNDAY | MONDAY | TUESDAY | WEDNESDAY             | THURSDAY  | FRIDAY | SATURDAY |
|--------|--------|---------|-----------------------|---|--------|----------|
|        | 1      | 2       | 3                     | 4   | 5      | 6        |
| 7      | 8      | 9       | 10<br>Lunch and Learn | 11  | 12     | 13       |
| 14     | 15     | 16      | 17                    | 18  | 19     | 20       |
| 21     | 22     | 23      | 24<br>Lunch and Learn | 25  | 26     | 27       |
| 28     | 29     | 30      | 31                    |   |        |          |
|        |        |         |                       | SPECIAL EVENTS:<br>Make plans to participate in the Fall Valley Creek Litter Clean-Up. Attend FREE Lunch and Learn Seminars held at the Birmingham Botanical Gardens; visit <a href="http://bbgardens.org/classes">bbgardens.org/classes</a> to learn more. |        |          |



# BIOSWALES

Bass Pro Shop is located in the midst of a 35-acre nature park. The site was designed to help protect Buck Creek and the Cahaba River from stormwater runoff. Grading and forest loss were minimized during construction which also helped eliminate erosion and sedimentation while saving the ecological habitat on site. Tiered parking lots, bridges, ponds, and seven bioswales were installed to reduce post construction stormwater impacts. The bioswales were integrated into the lower parking lot to allow stormwater to pass through channels. These channels concentrate and convey stormwater runoff while removing debris and vehicle pollution before the water enters the on-site lake. Bioswales can be beneficial in recharging groundwater and are typically vegetated, mulched, or xeriscaped to enhance their ability to provide stormwater treatment and retention.

**Takeaway:** Capturing and channeling stormwater into vegetative areas helps spread out, slow down and allow it to infiltrate into the ground. These practices also help remove and filter out other pollutants such as vehicle fluids, dirt and litter that are often carried by stormwater.

Photo, Cahaba River Society

**Bioswales are vegetative areas / strips that help store and filter rain water.**

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# SEPTEMBER 2022

HELP STOP LOCALIZED FLOODING; KEEP YARD DEBRIS OUT OF THE STORMWATER DRAINAGE SYSTEM.

The stormwater drainage system is designed for rainwater only. When this system gets clogged with leaves and grass clippings there is no room for the rainwater to enter and flooding occurs.

If you hire a yard professional, make sure they don't blow yard debris into the street, curb inlet or drainage ditch.

Not all cities offer loose leaf curbside pickup. Call your local city hall to find out what yard debris services/resources they offer.

| SUNDAY                 | MONDAY         | TUESDAY | WEDNESDAY  | THURSDAY | FRIDAY | SATURDAY |
|------------------------|----------------|---------|--|----------|--------|----------|
|                        |                |         |  | 1        | 2      | 3        |
| 4                      | 5<br>Labor Day | 6       | 7<br>Lunch and Learn   | 8        | 9      | 10       |
| 11                     | 12             | 13      | 14   | 15       | 16     | 17       |
| 18                     | 19             | 20      | 21<br>Lunch and Learn  | 22       | 23     | 24       |
| 25<br>World Rivers Day | 26             | 27      | 28   | 29       | 30     |          |
|                        |                |         | <b>SPECIAL EVENTS:</b><br>Plan to shop the Birmingham Botanical Gardens Fall Plant sale this month! Make plans to participate in either the Shades Creek Fall Litter Clean-Up or the Village Creek Fall Litter Clean-Up this month; call 325-8741 for details. |          |        |          |



# SETTLING POND



The Rain Garden Settling Pond located on Birmingham Southern College's campus is used to temporarily hold stormwater leaving the United Methodist Church North Alabama Conference Center and its parking lot which are located on the campus. The purpose is twofold: to prevent stormwater from running off the site, potentially causing erosion and sedimentation; and for removing pollutants from the stormwater and promoting infiltration. The stormwater remains in the pond long enough to allow any sediment or other solid pollutants to settle out. There is an overflow feature that allows excess stormwater to flow from this area into the lake before emptying into nearby Valley Creek. This slows the speed of stormwater and helps stop a rush of water from entering the lake. Native vegetation, suited to these conditions, is planted in and around the pond. These plants act as buffers to stabilize the soil, help filter out the pollutants, and provide food and shelter for wildlife.

**Takeaway:** If you have a naturally occurring wet area in your yard, consider installing a rain garden that will temporarily hold the stormwater runoff from your roof and lawn, and allow it to slowly sink into the earth.

Photo, Birmingham Southern College

**Settling ponds and rain gardens capture and store rainwater to reduce runoff.**

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# OCTOBER 2022

## DO YOUR PART TO REDUCE THE AMOUNT OF NUTRIENTS IN OUR WATERWAYS!

Nutrient pollution is the process where too many nutrients, mainly nitrogen (N) and phosphorus (P), wash into waterways. These nutrients come from fertilizers, sewer overflows, dog waste, and failing septic systems.

Test your soil and apply the right fertilizer product in the correct amount.

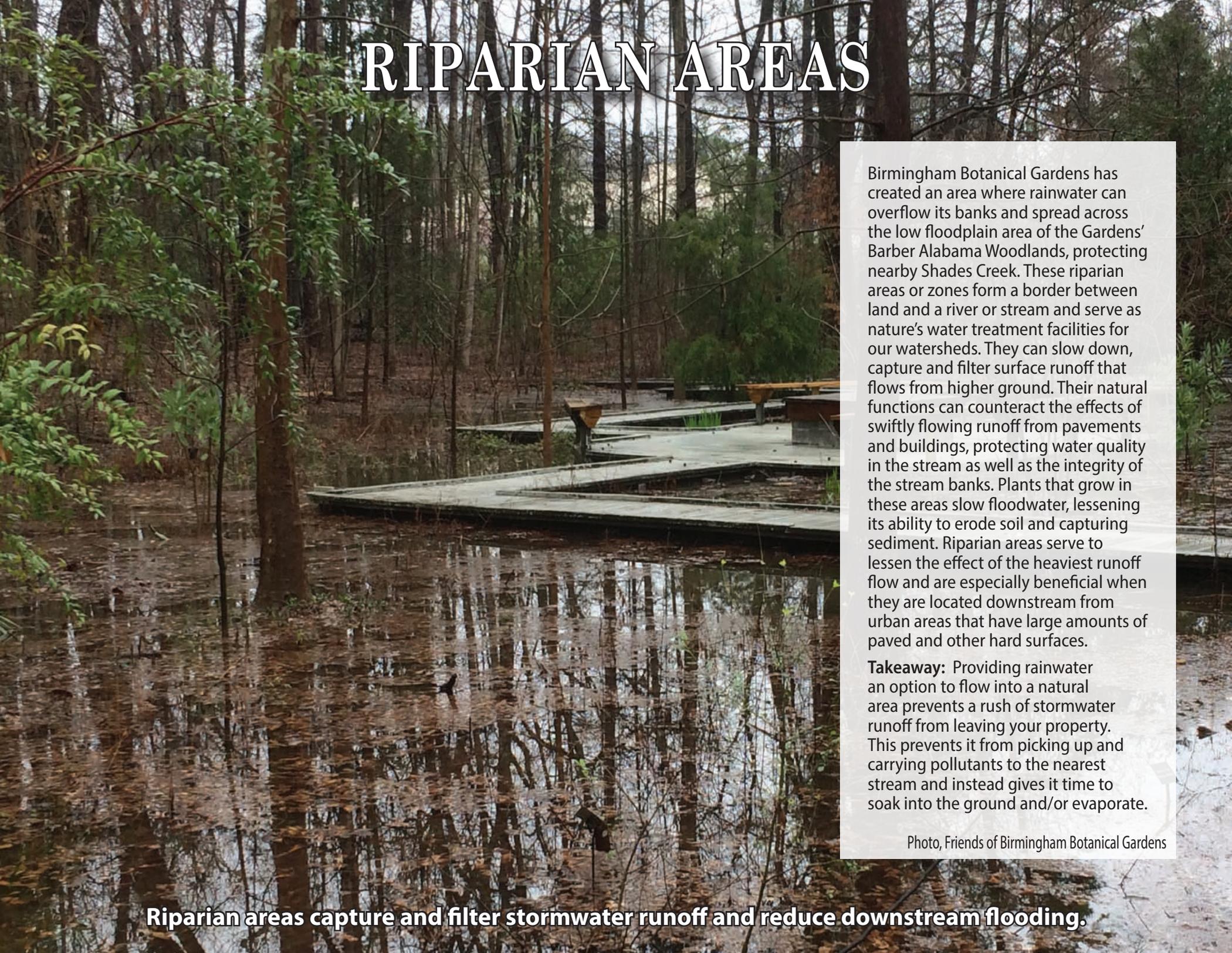
Have your septic systems inspected and pumped out at least every five years.

Always pick up your pet's waste and place it in the trash for proper disposal.

| SUNDAY | MONDAY                           | TUESDAY | WEDNESDAY   | THURSDAY | FRIDAY | SATURDAY |
|--------|----------------------------------|---------|---|----------|--------|----------|
|        |                                  |         |   |          |        | 1        |
| 2      | 3                                | 4       | 5   | 6        | 7      | 8        |
| 9      | 10<br>Columbus Day<br>(observed) | 11      | 12  | 13       | 14     | 15       |
| 16     | 17                               | 18      | 19  | 20       | 21     | 22       |
| 23     | 24                               | 25      | 26  | 27       | 28     | 29       |
| 30     | 31<br>Halloween                  |         | <b>SPECIAL EVENTS:</b><br>Did you know this calendar converts into 3 posters you can hang on the wall after the calendar year is over? Remove the center staples - the first two complete pages are now posters, as is the centerfold page. |          |        |          |



# RIPARIAN AREAS

A photograph of a riparian area. In the foreground, a stream flows through a wooded area, with its surface reflecting the surrounding trees and sky. The water is dark and still, creating clear reflections. In the middle ground, there are several concrete structures, possibly part of a stormwater management system, including a series of rectangular basins and a larger rectangular structure. The background is filled with tall, thin trees, some with green leaves and others bare, suggesting a late autumn or winter setting. The overall scene is a natural, wooded area with human-made structures integrated into it.

Birmingham Botanical Gardens has created an area where rainwater can overflow its banks and spread across the low floodplain area of the Gardens' Barber Alabama Woodlands, protecting nearby Shades Creek. These riparian areas or zones form a border between land and a river or stream and serve as nature's water treatment facilities for our watersheds. They can slow down, capture and filter surface runoff that flows from higher ground. Their natural functions can counteract the effects of swiftly flowing runoff from pavements and buildings, protecting water quality in the stream as well as the integrity of the stream banks. Plants that grow in these areas slow floodwater, lessening its ability to erode soil and capturing sediment. Riparian areas serve to lessen the effect of the heaviest runoff flow and are especially beneficial when they are located downstream from urban areas that have large amounts of paved and other hard surfaces.

**Takeaway:** Providing rainwater an option to flow into a natural area prevents a rush of stormwater runoff from leaving your property. This prevents it from picking up and carrying pollutants to the nearest stream and instead gives it time to soak into the ground and/or evaporate.

Photo, Friends of Birmingham Botanical Gardens

**Riparian areas capture and filter stormwater runoff and reduce downstream flooding.**

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# NOVEMBER 2022

## HELP PREVENT SANITARY SEWER OVERFLOWS THIS HOLIDAY SEASON.

Deep fried turkeys and other fried foods generate many gallons of used cooking oil and grease. Pouring these items down the kitchen sink drain creates problems at your home and in the sanitary sewer system. Backups and overflows are costly to repair, smell bad, and are hazardous to your health.

Allow grease to cool and then pour into a container to recycle. New, clean recycling containers are available for FREE at all Jefferson County collection centers. Visit [www.jeffcoes.org](http://www.jeffcoes.org) to find a location near you.

| SUNDAY                             | MONDAY | TUESDAY                       | WEDNESDAY | THURSDAY  | FRIDAY             | SATURDAY |
|------------------------------------|--------|-------------------------------|-----------|---|--------------------|----------|
|                                    |        | 1                             | 2         | 3   | 4                  | 5        |
| 6<br>Daylight Savings<br>Time Ends | 7      | 8<br>Election Day             | 9         | 10  | 11<br>Veterans Day | 12       |
| 13                                 | 14     | 15<br>America Recycles<br>Day | 16        | 17  | 18                 | 19       |
| 20                                 | 21     | 22                            | 23        | 24<br>Thanksgiving Day  | 25                 | 26       |
| 27                                 | 28     | 29                            | 30        |   |                    |          |
|                                    |        |                               |           | SPECIAL EVENTS:<br>Recycle your used Household Cooking Oil and Grease;<br>visit <a href="http://jeffcoes.org">jeffcoes.org</a> to find a location near you. |                    |          |



# RAIN GARDENS

Hard surfaces like roofs and driveways don't allow rainwater to soak into the ground. A rain garden can restore this natural function by keeping rainwater on site rather than leaving your property and becoming runoff. Runoff becomes harmful when it picks up trash and pollutants from the ground, carries it through storm drains and gutters, and empties this untreated rainwater into waterways. A rain garden can maximize the amount of rainwater that remains on site by functioning like a miniature watershed, allowing rainwater to slowly infiltrate, thereby protecting nearby waterways from polluted runoff.

**Takeaway:** You can prevent runoff by installing a rain garden. Choose native plants that are adapted to thrive in moist conditions but can tolerate drought. Place plants that prefer wetter conditions in the lowest areas of your rain garden, and plants that prefer dryer conditions on higher ground. Including native plants such as coneflowers, asters, American beautyberry, wax myrtle, bee balm, and hummingbird mint in the rain garden will provide the extra benefit of serving as a food source and habitat for birds and other wildlife.

**More Information:** <https://www.aces.edu/blog/topics/landscaping/rain-gardens/>

Photo, Eve Brantley, AU/ACES

**Rain gardens, planted in low areas, are designed to collect rainwater from a roof, driveway or street.**

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# DECEMBER 2022

FLUSHABLE WIPES ARE NOT FLUSHABLE – THEY CAUSE BLOCKAGES THAT CAN LEAD TO OVERFLOWS IN THE SANITARY SEWER SYSTEM.

Flushable baby wipes and disinfecting wipes have been proven to take longer to break down than traditional toilet paper that is designed for the sanitary sewer system. As they make their way down the pipes, rather than breaking down quickly, they start clogs that lead to blockages and cause sanitary sewer overflows.

Place all used wipes, flushable or not, in the household trash for proper disposal.

| SUNDAY                              | MONDAY | TUESDAY | WEDNESDAY | THURSDAY | FRIDAY | SATURDAY             |
|-------------------------------------|--------|---------|-----------|----------|--------|----------------------|
|                                     |        |         |           | 1        | 2      | 3                    |
| 4                                   | 5      | 6       | 7         | 8        | 9      | 10                   |
| 11                                  | 12     | 13      | 14        | 15       | 16     | 17                   |
| 18<br>Hanukkah begins<br>at sundown | 19     | 20      | 21        | 22       | 23     | 24<br>Christmas Eve  |
| 25<br>Christmas Day                 | 26     | 27      | 28        | 29       | 30     | 31<br>New Year's Eve |

This calendar converts into 3 posters you can hang on the wall. When this month is over, safely remove the staples. The first 2 pages and the center page are now posters!

**SPECIAL EVENTS:**

Recycle your old electronics; visit [jccal.org](http://jccal.org) to learn more.  
Recycle your Christmas trees at the Birmingham Zoo; more information is available at [birminghamzoo.com](http://birminghamzoo.com).





**CITY OF BIRMINGHAM**

**JEFFERSON COUNTY COMMISSION**



Printing provided by City of Birmingham Print Shop  
Photograph courtesy of JoPaul Cates

