

2023 STORMWATER CALENDAR



Photo Courtesy of Jefferson County Master Gardeners

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

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

Connections and Corridors, Freshwater Land Trust's Red Rock Trail System

Since the beginning of civilization, people and animals have used waterways as corridors to connect to various places. Waterways were vital to the transport of food, goods, and services. Waterways and watersheds don't follow municipal boundaries; they meander through many different neighborhoods, cities / towns and even counties to reach their destination, which in Jefferson County is Mobile Bay and then the Gulf of Mexico.

Jefferson County is fortunate to have a local non-profit, Freshwater Land Trust, that sees the importance of connections and corridors given they have been conserving land that is critical for the protections of rivers while providing recreational opportunities for local communities since 1996. They mostly work in Bibb, Blount, Dallas, Jefferson, Shelby, St. Clair, Tuscaloosa, and Walker Counties, partnering with governments, corporations, landowners, and community groups to protect the natural environment and to increase public outdoor recreational opportunities. In Jefferson County alone, they have completed 125 miles of trails as part of the Red Rock Trail System. This trail system is a network of trails, parks, bike lanes, and sidewalks made up of six major corridors spanning Jefferson County. Each corridor consists of different types of trails that connect the County together such as greenways, bike lanes, natural trails, completed streets and sharrows (shared lanes for both bikes and cars). The main trails primarily follow the Birmingham area waterways. The master plan for Red Rock Trail System proposes 750 miles of multi-use trails, parks, bike lanes, and sidewalks. Their vision is for every trail within each corridor to be connected, allowing Jefferson County residents complete access to routine transportation and recreation. Once completed, the trail system will consist of seven corridors: Jones Valley and Valley Creek, Village Creek, Five Mile Creek, Shades Creek, Cahaba River, Turkey Creek.

The front and back covers of this stormwater calendar feature the High Ore Line Greenway in the Jones Valley corridor. This greenway runs for nearly three miles along a former railroad grade that Tennessee Coal and Iron used to transfer ore from Red Mountain to their furnace in Ensley. The bridges along the route offer fantastic views of Valley Creek and the Bessemer Super Highway. There is a steep hill near the Red Mountain Park Venice Road Entrance. To help beautify the trailhead and to manage some stormwater runoff issues, a pollinator garden was installed next to the Fire Station in Midfield (704 Doctor M.L.K. Jr Dr, Midfield, AL 35228). The Garden was installed as an intern project for the 2020 Jefferson County Master Gardeners. The project was just beginning when the worldwide pandemic struck, and funding was lost. Donning masks and learning how to propagate plants from stem cuttings and seeds, the 2020 Interns planted the 800-square foot pollinator garden which features mostly native pollinator friendly plants. Even though most of the plants are drought tolerant, the Midfield Fire Department helps water the garden during dry spells.

No matter if you like to walk, run, hike or bike, the Red Rock Trail System has a trail for you to travel. We welcome you to discover the beauty of the great outdoors in Jefferson County and enjoy Freshwater Land Trust's hard work and dedication to conserving, connecting, and caring for land and water in Central Alabama. Visit freshwaterlandtrust.org/find-a-trail/.



Water Resources and Contacts

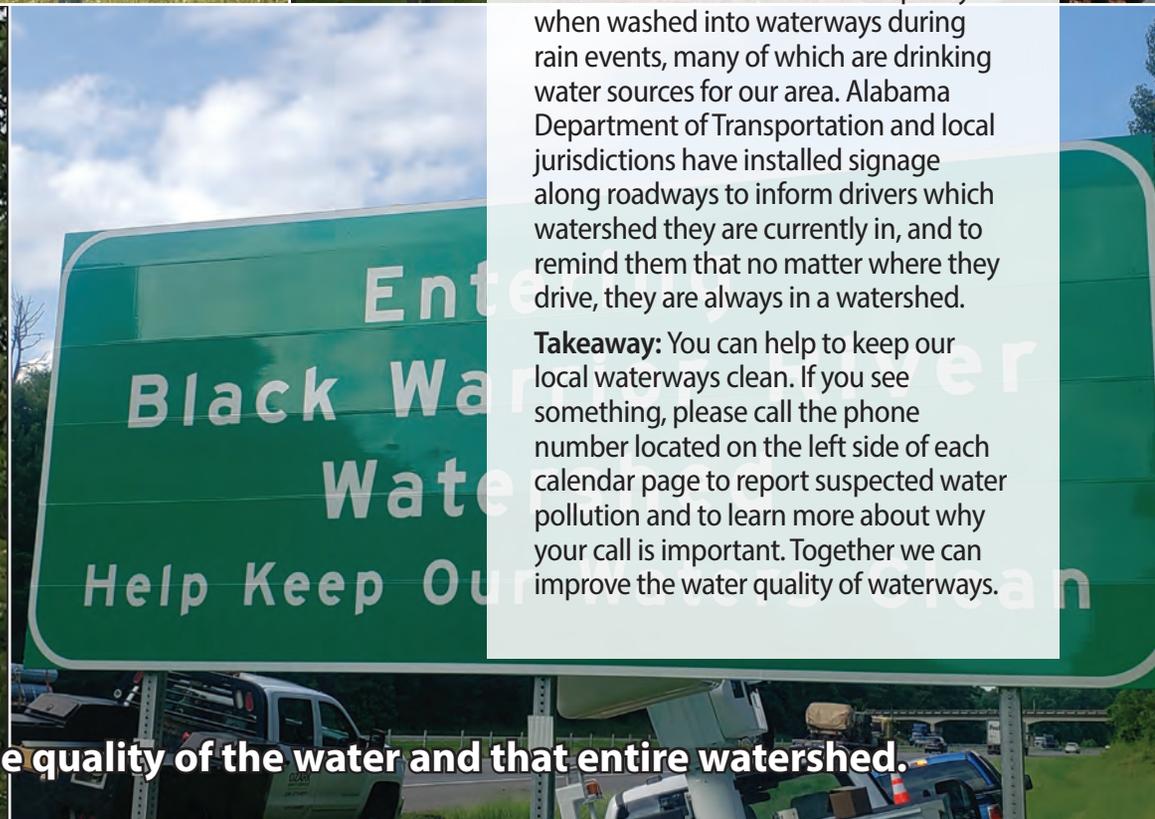
- ADEM** adem.state.al.us; 334-260-4501
Statewide agency that administers the Municipal NPDES Stormwater Permit to local jurisdictions.
- Alabama Water Watch** alabamawaterwatch.org
Statewide citizen-based water monitoring program.
- Alabama Rivers Alliance** alabamarivers.org
Statewide network of groups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

PROTECTING WATERSHEDS



Watersheds are areas of land, defined by mountains and valleys, where rainwater within this boundary flows to one body of water. Every inch of land is in a watershed. What you do on that land directly effects the water quality of that watershed. For example, watersheds with many homes and roadways have a greater chance of generating non-point source (NPS) pollution, also called polluted runoff, than watersheds that contain only forest land. NPS pollution consists of common items such as yard chemicals, vehicle fluids, eroded soils, and trash that can harm water quality when washed into waterways during rain events, many of which are drinking water sources for our area. Alabama Department of Transportation and local jurisdictions have installed signage along roadways to inform drivers which watershed they are currently in, and to remind them that no matter where they drive, they are always in a watershed.

Takeaway: You can help to keep our local waterways clean. If you see something, please call the phone number located on the left side of each calendar page to report suspected water pollution and to learn more about why your call is important. Together we can improve the water quality of waterways.



Our everyday activities can impact the quality of the water and that entire watershed.

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 2023

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. Spills and leaks from oil and other petroleum products can be washed by rain into waterways. These 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 New Year's Day	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16 Martin Luther King Jr. Day	17	18	19	20	21
22	23	24	25	26	27	28 Electronic Take Back Event
29	30	31				
			<p>SPECIAL EVENTS: This month is the Salamander Festival; visit shadescreek.org for details! Recycle your Christmas trees at the Birmingham Zoo. Participate in a MLK Day of Service Litter Clean-Up; visit jccal.org for details!</p>			



LANDSCAPING TO REDUCE RUNOFF

Traditionally, our stormwater drainage system has been designed to transport water quickly from paved areas to the nearest waterbody to prevent flooding. This system is effective, but as more areas have become paved, large amounts of fast-moving water flow into waterways every time it rains. The volume and speed of this water has eroded streambanks and created isolated flooding, causing cities and counties to significantly change how they handle their rainwater. Engineers now try to mimic Mother Nature by using techniques and practices called Low Impact Development (LID) that promote infiltration and result in less runoff. LID helps improve water quality by allowing water to soak into the ground, thereby reducing sediment and nutrient loads. LID installations also provide crucial habitat for wildlife given these practices promote the use of native vegetation and preservation of land when possible. One proven LID practice is the installation of bioswales which are typically placed at the end of large, paved areas. Bioswales channel stormwater runoff to a vegetated area like the one shown in the photo, allowing it to slow down, spread out, and infiltrate into the ground. Pollutants such as vehicle fluids, dirt, and litter are removed and filtered out during this process.

Photo, Eve Brantley, AU/ACES

Capturing and channeling stormwater into vegetative areas increases infiltration and reduces runoff.

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FEBRUARY 2023

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

Rain can wash away (erode) bare soil and carry it 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 it 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.

For outside cleaning projects, 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 Groundhog Day	3	4
5	6	7	8	9	10	11
12	13	14 Valentine's Day	15	16	17	18
19	20 Presidents Day	21	22	23	24	25 Electronic Take Back Event
26	27	28				
Trees are beneficial in reducing Stormwater Runoff. Celebrate Alabama Arbor Week between February 20-26 and plant a tree!			SPECIAL EVENTS: Register your community to participate in the Spring Clean-Up through the Alabama People Against a Littered State; call 205-325-8741 for more information.			



DISPOSING OF TRASH

It is plain and simple - littering is ugly, it causes water pollution, and is the easiest thing to prevent! Intentional or not, trash that is not disposed of correctly harms our environment and our local economy.

Littering costs A LOT to clean up. Jefferson County and its surrounding cities spend millions of dollars and countless hours each year picking up litter from along roadways and out of waterways. Sadly, city and county litter crews cannot keep up with the litterers! Picking up litter prevents city and county staff from doing other important work to improve our communities such as paving roads and repairing potholes.

Litter can cause car wrecks. Swerving to dodge animals and wildlife that come to eat the discarded food can cause injuries and property damage.

Litter causes water pollution. Items thrown out of vehicles or dropped on the ground never stay where they land; they get washed by rain to the nearest waterway. Since every waterway in Jefferson County drains to the Gulf of Mexico through Mobile Bay, our litter impacts our oceans as well.

Takeaway: Be a Litter Quitter! If you do litter, STOP, and tell others to do the same. Visit litterquitters.org to see what stormwater programs and businesses are doing to combat the litter epidemic.



Whether in your vehicle, in a public space, or at your home, ALWAYS dispose of your trash correctly.

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MARCH 2023

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 Daylight Savings Time Begins	13	14	15	16	17 St. Patrick's Day	18
19	20	21	22 World Water Day	23	24	25
26	27	28	29	30	31	
			SPECIAL EVENTS: Participate in the Valley Creek Spring or the Mulga Loop Road Clean-Up; visit jccal.org for details. March kicks off the FREE Lunch and Learn Seminars held at the Birmingham Botanical Gardens; visit bbgardens.org/classes for details.			



MANAGING HOUSEHOLD HAZARDOUS WASTE

Some household products require special care when applying, storing, or disposing of them. Common products such as paints, household cleaners, vehicle fluids, yard chemicals, and E-waste are considered to be household hazardous waste (HHW). These products require special care from purchase to disposal. HHW should never be placed in household trash for curbside pickup, flushed down toilets, emptied into sinks, or poured onto the ground. The safest way to dispose of these items is to bring them to the periodic Electronic Drop-Off events and the annual HHW Collection event held in Jefferson County. Visit www.jccal.org or call 205.325.8741 for dates and locations.

Good housekeeping practices include:

- Storing containers and materials in a manner that prevents leaks, spills, and is away from contact with rainwater.
- The label is the law - always read and follow label instructions.
- Immediately contain and soak up spilled products with absorbent materials such as a pad or kitty litter, then sweep up and place the used material in the trash for proper disposal. Never wash spills away with the hose since this will carry the products into the storm drain system, potentially polluting a nearby creek.

Improper disposal of Household Hazardous Waste can harm the environment and human health.

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APRIL 2023

SINCE APRIL SHOWERS BRING MAY FLOWERS, THIS IS A PERFECT MONTH TO CONSIDER REDUCING 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

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
						1 April Fool's Day
2 Palm Sunday	3	4	5 Passover begins at sundown	6	7 Good Friday	8
9 Easter Sunday	10 Voting begins for LitterQuitters.org!	11	12	13	14	15 Tax Day
16	17	18	19	20	21	22 Earth Day Voting ends for LitterQuitters.org!
23	24	25	26	27	28	29 Household Hazardous Waste Day - 3 locations
30	Plan to attend the annual Household Hazardous Waste Day. Visit jcdh.org or call 205-325-8741.		SPECIAL EVENTS: Sign up to attend the Rain Barrel Workshop this month. Barrels are available for purchase; pre-registration with the Jefferson County Conservation District is required. Call 205-565-2650 for details.			



DISPOSING OF PET WASTE



Picking up dog poo is not just a courtesy; it is also the healthy and environmentally sound thing to do EVERY TIME - EVERY PLACE, including your own yard. Pet waste left on the ground to dry out can get washed by rain into the storm drain system and end up in our rivers, lakes, and streams. Jefferson County is home to roughly 150,000 domesticated dogs, all living in close proximity to one another, and generating 38 tons of dog poo every day (yes, every day)! This concentration of animals and their poo is not natural especially when you consider many of them live in Jefferson County's urban and suburban areas. These areas have less green space and more paved surfaces which result in more stormwater runoff when it rains. Since an average pile of dog poo contains 2.5 billion fecal coliform bacteria as well as viruses and parasites, and there are 150,000 dogs creating waste each day, you can easily understand the importance picking up after your pooch.

Takeaway: Always pick up your pet's waste, tie it in a plastic bag, and place it in the trash for curbside pickup. Do this every time, every place including your own yard.

Pet waste can be harmful to people and our waterways when not disposed of properly.

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MAY 2023

BE CAREFUL WITH YARD CHEMICALS AND PLEASE 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 by bugs, 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 for further information.

	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
		1	2	3	4	5	6
	7	8	9	10	11	12	13 Electronic Take Back Event
	14 Mother's Day	15	16	17	18	19	20
	21	22	23	24	25	26	27
	28	29 Memorial Day	30	31			
	<p>SPECIAL EVENTS: Attend this month's Electronic Take Back and Paper Shredding event held at the Jefferson County Satellite Courthouse in Center Point. Call 205-325-8741 for more information</p>						



HARVESTING RAINWATER

Rainwater harvesting is the process of collecting, storing, and repurposing rainwater that would otherwise fall onto the ground and drain away into the storm drain system, eventually entering a local lake, river, or stream. Harvesting rainwater is not just a 'cool' thing to do; it has many benefits to both your wallet and the environment. Capturing rainwater and using it as a water source to water your landscape saves you money on your water bill, as well as reduces erosion around your downspouts. Capturing rainwater can potentially help reduce localized flooding because the more water we can 'hold back' and store on our property for use when it is not raining means there is that much less water entering the storm drain system in the first place. Whether it be large scale (cisterns) or small scale (rain barrels), capturing rain for future use is a stormwater benefit. Next time you visit Turkey Creek Nature Preserve, stop by, and see their new 1,200-gallon cistern. This cistern collects rainwater from the roof of the new Pavilion and is used for irrigating the surrounding native plant garden.

Takeaway: Install a water collecting device for use in your landscape at home or at your business.

Photo, Charles Yeager / TCNP

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

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JUNE 2023

BE MINDFUL 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 levels in waterways 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.

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
				1	2	3
4	5 World Environment Day	6	7	8 World Oceans Day	9	10 Electronic Take Back Event
11	12	13	14	15	16	17
18 Father's Day	19 Juneteenth Independence Day	20	21	22	23	24
25	26	27	28	29	30	

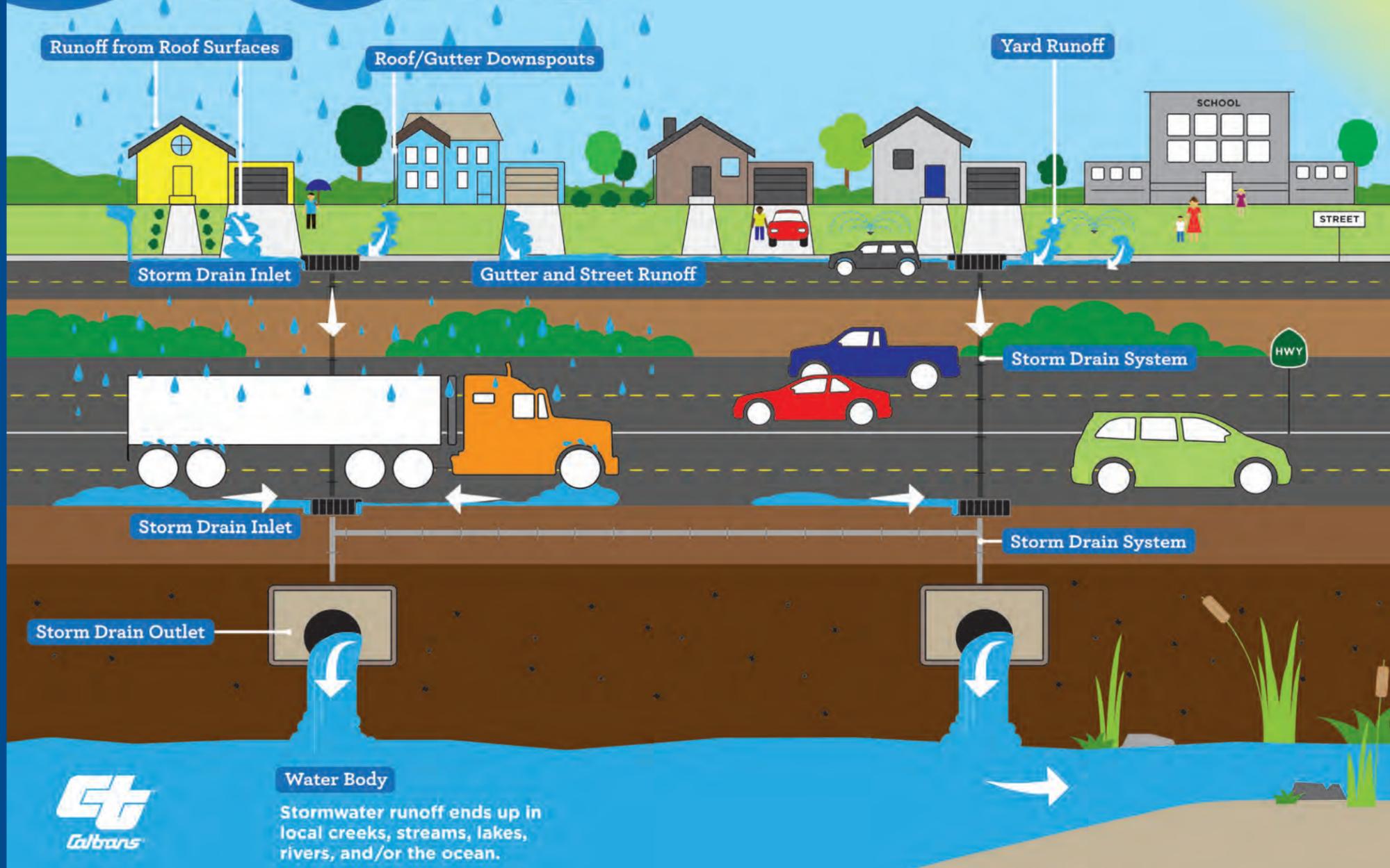
The following center page, as well as the first two pages, can be used as posters when you are done with this calendar. Just carefully take out the staples.

SPECIAL EVENTS:

Attend this month's Electronic Take Back and Paper Shredding event held at the Jefferson County Water Reclamation Facility in Bessemer. Call 205-325-8741 for more information.



Stormwater Runoff



Actions do matter when it comes to stormwater runoff!

Your everyday activities can influence local water quality. The photos below show both good and bad behaviors that can cause or prevent non-point source (NPS) pollution. Common NPS pollution is pesticides, herbicides and fertilizers from yards, 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 pollution is the biggest threat to our water quality. You can help reduce NPS pollution and protect local water quality. While your part might seem small, every little bit adds up to make a significant difference.



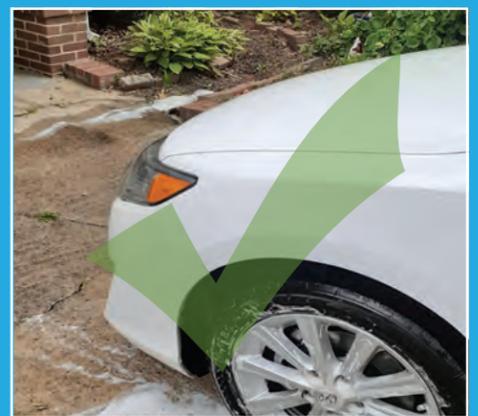
Always pick up and dispose of pet waste in the trash.



Always read and follow all label directions.



Rain is the only thing that should enter the storm drain!



Divert car wash water to grass or other vegetation.



Maintain your vehicle. Fix and repair leaks and drips, and quickly clean up spills.



Cover bare areas in your landscape. When disturbing the ground, install silt fencing.



Only flush the 3 P's: pee, poo and paper - never wipes or Rx's.



Littering says a lot about you and it isn't good. Never toss anything out of windows.

MONITORING WATERWAYS

Water is a finite resource - while we cannot make more water, we can take action to protect the water we have. The earth's surface primarily consists of water (about 70% water and 30% land), however, only 1% is surface or fresh water easily available for use by agriculture, business, industry, and as a drinking water source. Having (and keeping) our waterways clean is extremely important. The Environmental Protection Agency (EPA) sets standards for each waterbody based on how the waterway is being used. Stormwater Program staff, developers, and industries monitor waterbodies to ensure they are within established standards. Monitoring includes analyzing the chemical characteristics of water and in some cases investigating what type of aquatic organisms are present since different species have different tolerance levels for pollutants. If the waterbody is determined to be below standards, measures are taken to identify the source of the pollution and reduce or eliminate it.

Takeaway: Alabama has a citizen volunteer, water quality monitoring program called Alabama Water Watch (AWW). AWW uses EPA-approved monitoring plans with a community-based approach to train citizens to monitor conditions and trends of their local waterbodies. Visit alabamawaterwatch.org to learn more and sign up for a training today!



Photo, Nelson Brooke



Photo, Jefferson County Department of Health

Water monitoring is vital to determine the overall health of our waterways.

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JULY 2023

THIS INDEPENDANCE DAY,
CELEBRATE YOUR RIGHT
TO CLEAN WATER!

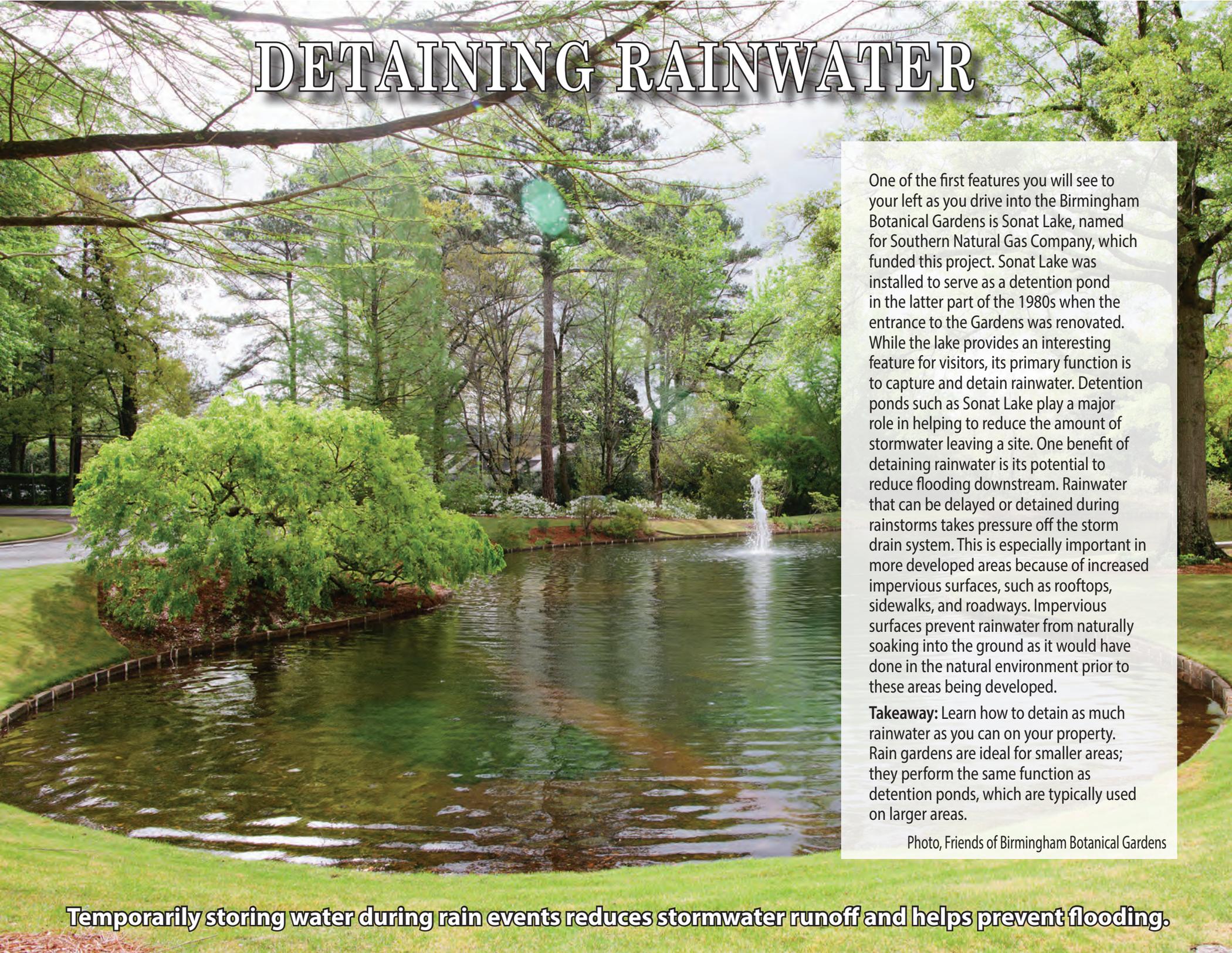
The Clean Water Act and its amendments were enacted to protect the health and safety of Americans. Its primary objective is to restore and maintain the integrity of the nation's waters. It regulates the types and amounts of pollutants that can be released into waterways in order to achieve their set water quality standard levels.

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
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.						1
2	3	4 Independance Day	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31	SPECIAL EVENTS: Attend the Float Your Boat Summer Festival this month at Turkey Creek Nature Preserve; visit turkeycreeknp.com for details.				



DETAINING RAINWATER

A photograph of a large, calm pond surrounded by lush green trees and a well-maintained lawn. A small fountain is visible in the middle of the pond, spraying water upwards. The sky is overcast, and the overall atmosphere is peaceful and natural.

One of the first features you will see to your left as you drive into the Birmingham Botanical Gardens is Sonat Lake, named for Southern Natural Gas Company, which funded this project. Sonat Lake was installed to serve as a detention pond in the latter part of the 1980s when the entrance to the Gardens was renovated. While the lake provides an interesting feature for visitors, its primary function is to capture and detain rainwater. Detention ponds such as Sonat Lake play a major role in helping to reduce the amount of stormwater leaving a site. One benefit of detaining rainwater is its potential to reduce flooding downstream. Rainwater that can be delayed or detained during rainstorms takes pressure off the storm drain system. This is especially important in more developed areas because of increased impervious surfaces, such as rooftops, sidewalks, and roadways. Impervious surfaces prevent rainwater from naturally soaking into the ground as it would have done in the natural environment prior to these areas being developed.

Takeaway: Learn how to detain as much rainwater as you can on your property. Rain gardens are ideal for smaller areas; they perform the same function as detention ponds, which are typically used on larger areas.

Photo, Friends of Birmingham Botanical Gardens

Temporarily storing water during rain events reduces stormwater runoff and helps prevent flooding.

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AUGUST 2023

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 quality of life and 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 next to the pumps at every gas station.

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	19
20	21	22	23	24	25	26
27	28	29	30	31		
			<p>SPECIAL EVENTS: 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 bbgardens.org/classes to learn more.</p>			



STABILIZING SLOPES



Steep hillside landscapes present several challenges to gardeners and property owners. Maintenance can be difficult, at best, and establishing plants -- though very important for slope stability -- often requires implementing costly and laborious solutions for erosion control. Every time it rains, the water that flows down a slope slowly removes soil and can cause gullies to form over time, removing valuable topsoil from the landscape. Using retaining walls, such as these gabion walls shown in the photo, are especially effective on steep inclines and creek banks. These rock-filled wire cages help hold back the soil and allow the stormwater runoff a place to filter into the ground. This slows the speed of the runoff by spreading it out and slowing it down. Backfilling the gabion walls terrace this space which provides planting areas to add vegetation that will help stabilize the soil much like these pink muhly grasses seen in the picture.

On smaller slopes, vegetated swales and berms can be installed. Vegetated swales are grass-lined depressions that collect the runoff, which is held in place by the berm, typically made up of the excavated material for the swale. Both work together to retain runoff in a designated area along the downhill side of the location.

Photo, Greg Harber

Control stormwater runoff by slowing it down, spreading it out and allowing it to soak into the ground.

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.

SEPTEMBER 2023

PLEASE 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, so check before placing leaf and other yard debris at the curb. 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 Labor Day	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24 World Rivers Day Yom Kippur begins at sundown	25	26	27	28	29	30
			<p>SPECIAL EVENTS: Make plans to participate in either the Shades Creek Fall Litter Clean-Up or the Village Creek Fall Litter Clean-Up this month; call 205-325-8741 for details.</p>			



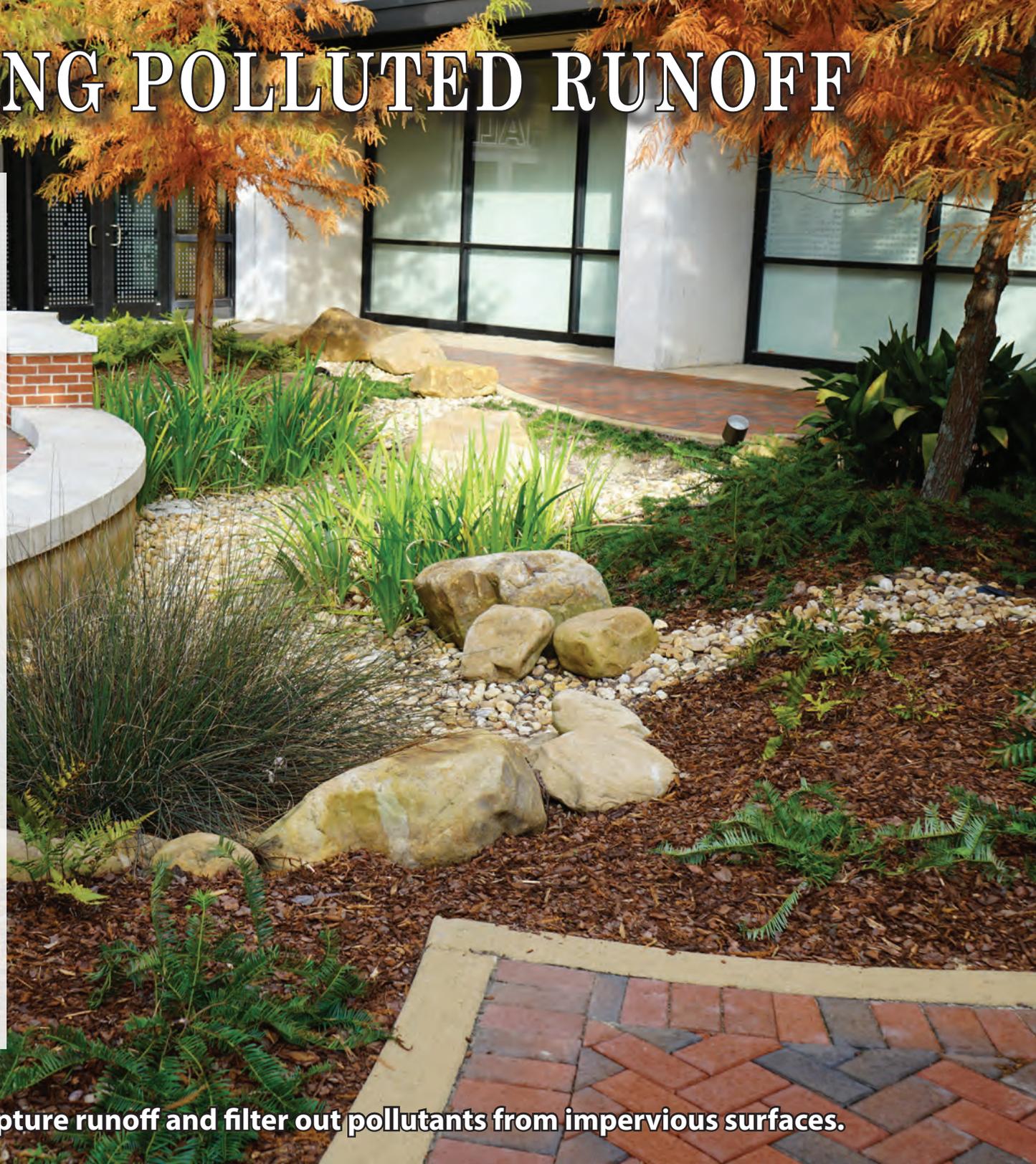
REDUCING POLLUTED RUNOFF

Rain that falls onto impervious surfaces like roofs, roads, and sidewalks flows untreated into the storm drain system. As it travels along the ground, the rainwater picks up and carries anything with which it comes in contact. This creates polluted runoff, which then flows through the storm drain system and empties into the nearest waterbody. This polluted runoff includes pet waste, yard chemicals, vehicle fluids, eroded soil, and trash. We can protect our water quality by installing features or systems to capture and filter out pollutants from runoff. This month, we highlight a beautiful bioretention cell which is an engineered system of soil media (comprised of sand, compost, and existing soil) able to intercept nutrients from fertilizers, heavy metals from roofs, vehicle fluids from paved areas, and sediment from eroding soils contained in polluted runoff. These engineered areas capture, filter, and treat large amounts of runoff to remove pollutants before they enter our waterways. Rain Gardens work the same way, but are used for smaller scale applications such as residential properties.

Takeaway: Identify areas where you can reduce your stormwater runoff footprint from rooftops and other paved areas at your home.

Photo, Keith Rahn

Bioretention cells capture runoff and filter out pollutants from impervious surfaces.



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OCTOBER 2023

YOU CAN 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), are washed by rain 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, bag it, 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 Columbus Day (observed)	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31 Halloween				
			SPECIAL EVENTS: 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.			



PREVENTING PLUMBING ISSUES

No matter what the ads claim, wipes of any kind - even those labeled as 'flushable' - should NEVER be flushed - EVER. Wipes, which are commonly used for personal hygiene, general house cleaning and diaper changes, are typically made with synthetic materials (plastics or polyester) which do not break down in sewer or septic systems the way toilet paper is designed to do. As a result, flushing these wipes can clog your toilet and/or create sewage backups into your home or your neighborhood. Wipes attach onto any imperfection in sewer pipes, catch passing debris and grease, and create 'fatbergs' (big globs of wipes, grease, and sewage) that can grow large enough to clog the pipes in your home as well as those in the sewer system. Even if the wipes do make it through the system, they can create problems when they arrive at the treatment facilities. The equipment at the treatment facilities can be clogged or damaged when the wipes are drawn into the sewer line and treatment plant pumps. It is very costly for this equipment to be repaired or replaced; often these costs are passed on to the consumer. Whenever in doubt if something is flushable, go back to the 3-Ps: Only flush pee, poo and (toilet) paper at home, work, school, or anywhere else.



Disposable wipes should ONLY be disposed of in the trash, never ever flushed down the toilet.

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.

NOVEMBER 2023

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 to find a location near you.

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



MAINTAINING VEHICLES



Stormwater runoff is a growing problem due to the ever-increasing paved surfaces we construct. Converting vegetated areas to paved areas comes at a cost to the storm drain system and our waterways. Rain, which once was able to soak into the ground, now flows through the storm drain system to the nearest waterway, carrying with it anything it meets. One major contributor is pollutants that come from vehicles. When driven, our cars and trucks leave bits of tires and brakes on the street; when parked, they can drip oil, grease, and transmission fluid on paved surfaces. These pollutants are carried by rain through the stormwater drainage system, becoming polluted runoff. Polluted runoff is the biggest threat to water quality in the US, which is why vehicle maintenance is so important. Remember to:

- Routinely check for leaks; fix and repair drips quickly.
- Clean up spills immediately with absorbent materials, sweep up, and properly dispose in the trash.
- Never pour motor oil or other vehicle fluids down the storm drain, on the ground, or into a ditch; recycle them at Household Hazardous Waste Day events or retail oil change facilities.

Fix and repair vehicle leaks to reduce water pollution cause by automotive fluids, oil, and grease.

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.

DECEMBER 2023

"FLUSHABLE WIPES" ARE NOT FLUSHABLE! THEY CAUSE BLOCKAGES THAT CAN LEAD TO OVERFLOWS IN THE SANTITARY SEWER SYSTEM.

"Flushable" baby wipes, personal care wipes, and disinfecting wipes might work well for the job at hand, but they are NOT flushable. These wipes take much longer to break down than traditional toilet paper that is designed to disintegrate in water when flushed into the sanitary sewer or septic tank. As wipes make their way down the pipes, rather than breaking down quickly, they create 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
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!					1	2
3	4	5	6	7 Hanukkah begins at sundown	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24 Christmas Eve	25 Christmas Day	26	27	28	29	30
31 New Year's Eve			SPECIAL EVENTS: Recycle your old electronics; visit jccal.org to learn more. Recycle your Christmas trees at the Birmingham Zoo; more information is available at birminghamzoo.com .			



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.

Connections and Corridors, Freshwater Land Trust's Red Rock Trail System

Since the beginning of civilization, people and animals have used waterways as corridors to connect to various places. Waterways were vital to the transport of food, goods, and services. Waterways and watersheds don't follow municipal boundaries; they meander through many different neighborhoods, cities / towns and even counties to reach their destination, which in Jefferson County is Mobile Bay and then the Gulf of Mexico.

Jefferson County is fortunate to have a local non-profit, Freshwater Land Trust, that sees the importance of connections and corridors given they have been conserving land that is critical for the protections of rivers while providing recreational opportunities for local communities since 1996. They mostly work in Bibb, Blount, Dallas, Jefferson, Shelby, St. Clair, Tuscaloosa, and Walker Counties, partnering with governments, corporations, landowners, and community groups to protect the natural environment and to increase public outdoor recreational opportunities. In Jefferson County alone, they have completed 125 miles of trails as part of the Red Rock Trail System. This trail system is a network of trails, parks, bike lanes, and sidewalks made up of six major corridors spanning Jefferson County. Each corridor consists of different types of trails that connect the County together such as greenways, bike lanes, natural trails, completed streets and sharrows (shared lanes for both bikes and cars). The main trails primarily follow the Birmingham area waterways. The master plan for Red Rock Trail System proposes 750 miles of multi-use trails, parks, bike lanes, and sidewalks. Their vision is for every trail within each corridor to be connected, allowing Jefferson County residents complete access to routine transportation and recreation. Once completed, the trail system will consist of seven corridors: Jones Valley and Valley Creek, Village Creek, Five Mile Creek, Shades Creek, Cahaba River, Turkey Creek.

The front and back covers of this stormwater calendar feature the High Ore Line Greenway in the Jones Valley corridor. This greenway runs for nearly three miles along a former railroad grade that Tennessee Coal and Iron used to transfer ore from Red Mountain to their furnace in Ensley. The bridges along the route offer fantastic views of Valley Creek and the Bessemer Super Highway. There is a steep hill near the Red Mountain Park Venice Road Entrance. To help beautify the trailhead and to manage some stormwater runoff issues, a pollinator garden was installed next to the Fire Station in Midfield (704 Doctor M.L.K. Jr Dr, Midfield, AL 35228). The Garden was installed as an intern project for the 2020 Jefferson County Master Gardeners. The project was just beginning when the worldwide pandemic struck, and funding was lost. Donning masks and learning how to propagate plants from stem cuttings and seeds, the 2020 Interns planted the 800-square foot pollinator garden which features mostly native pollinator friendly plants. Even though most of the plants are drought tolerant, the Midfield Fire Department helps water the garden during dry spells.

No matter if you like to walk, run, hike or bike, the Red Rock Trail System has a trail for you to travel. We welcome you to discover the beauty of the great outdoors in Jefferson County and enjoy Freshwater Land Trust's hard work and dedication to conserving, connecting, and caring for land and water in Central Alabama. Visit freshwaterlandtrust.org/find-a-trail/.



Water Resources and Contacts

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



CITY OF BIRMINGHAM

JEFFERSON COUNTY COMMISSION



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