

Upstate Advocate

A Great Egret with its wings spread, perched on a wooden fence. The bird is facing left, and its wings are fully extended, showing the intricate patterns of its feathers. The background is a soft-focus green landscape with trees and foliage, suggesting a natural setting. The lighting is warm, likely from the sun being low in the sky, creating a golden glow around the bird and the fence.

NEXT-DOOR
NATURE

SHARING SPACE,
MAKING AMENDS
& FINDING WONDER
IN LANDSCAPES
CLOSE TO HOME

ON (& OFF) THE CLOCK:

Upstate Forever at work and play



Megan Chase-Muller, Ericka Berg, Lauren Ulich, and Scott Park in Columbia for the SC Conservation Coalition's annual Lobby Day.



UF Board Member Jeff Tillerson and Land Policy Manager Allie Martinsen at a reception honoring the Wyche Society. Learn more: upstateforever.org/wyche-society



Congratulations to Steely and Sam Parrott on their recent wedding! Steely (formerly Russell) is UF's Land Protection Coordinator.

25 YEARS | UPSTATE FOREVER

Protecting Land & Water | Advocacy | Balanced Growth

507 Pettigru Street, Greenville, SC 29601 | (864) 250-0500
201 E. Broad Street, Suite 1C, Spartanburg, SC 29306 | (864) 327-0090

www.upstateforever.org



Mission

Upstate Forever is a conservation organization that protects critical lands, waters, and the unique character of the Upstate of South Carolina.

Vision

To conserve our land and water resources, resulting in an environmentally healthy and economically prosperous region, with a high quality of life now and for future generations.

Board of Directors

John Keith, <i>Chair</i>	Bob Barreto	Phil Feisal	Kate Konopasek
Allen Jacoby, <i>Vice Chair</i>	John Bauknight	Mary Haque	Erwin Maddrey
Tom Kester, <i>Treasurer</i>	Mike Baur	Margaret Harrison	Jeff Tillerson
	Evan Cramer	Glenn Hilliard	Mark Wesson
	Sam Erwin		

Staff

Sherry Barrett <i>Land Policy Director</i>	Michael Coleman <i>Energy Advocate</i>	Aldon Knight <i>Director of Development & Community Relations</i>	Chris Starker <i>Land Conservation Manager</i>
Ericka Berg <i>Land Stewardship Coordinator</i>	Andrea Cooper <i>Executive Director</i>	Allie Martinsen <i>Land Policy Manager</i>	Elizabeth Swails <i>Communications Coordinator</i>
Cathy Bester <i>Program & Event Coordinator</i>	Joy Dickerson <i>Financial Director</i>	Leigh McGill <i>Assistant Financial Manager</i>	Ava Thacker <i>Gifts Processing & Database Coordinator</i>
Sally Boman <i>Communications Director</i>	Grace Flaspoeher <i>Asst. Director of Development & Community Relations</i>	Alison Miller <i>Information Systems Manager</i>	Lauren Ulich <i>Stewardship & Land Restoration Manager</i>
Megan Burton <i>Communications Manager</i>	Lisa Scott Hallo <i>Deputy Director</i>	Scott Park <i>Glenn Hilliard Director of Land Conservation</i>	Rebecca Wade <i>Clean Water Specialist</i>
Megan Chase-Muller <i>State Policy Director</i>	Erika Hollis <i>Clean Water Director</i>	Steely Parrott <i>Land Protection Coordinator</i>	Brad Wyche <i>Founder & Senior Advisor</i>
	Katie Hottel <i>Clean Water & GIS Manager</i>		

Advisory Council

Paul Agnew	Allen Creighton	Gina Hartness	Charlie Mickel	Sue Priester
Amanda Bauknight	Dianne Culbertson	Brice Hipp	Mary Miller	Dick Riley
Bob Becker	Mike Daniel	Wes Hulsey	Scott Montgomery	Susan Riordan
Jean Blair	Bob Erwin	John Knott	Betty Montgomery	Ted Shehan
Juan Brown	John Frampton	John Lane	Nell Newman	David Shi
Dan Burden	Vince Graham	Drew Lanham	Mike Nicklas	Gus Speth
Signe Cann	Jimmy Grantham	Patti McAbee	Carlton Owen	Brad Wyche
Dick Carr	Dave Hargett	Don McClure	Leon Patterson	Kris Yon
Wes Cooler	Russell Harris	Patrick McMillan	Joan Peters	

FROM THE DIRECTOR

Conservation, close to home

When we think about conservation, our forests, farms, mountains, and iconic areas often come to mind first, but nature is everywhere around us — even in urban areas. Sometimes the most special places are right outside our window, in our own neighborhoods.

I love to look out the window and see the first hummingbird of the season visit my family's garden. They entertain me all summer long until they make their migration back south. When I'm not watching hummingbirds zip around, I enjoy the resident cardinals who visit our bird feeders and raise their families nearby.

Nature is always trying to find ways to survive and expand, but urban areas simultaneously do the same. So, it's essential to protect our urban green space, tree canopy, water quality, and biodiversity. That's why UF works hard to ensure our region has clean water and air, ample green space, and sound policy to support our growing cities.

In this issue of the *Upstate Advocate*, we're looking at your neighborhood nature. The plants, animals, and ecosystems on these pages remind us that we share this world with other creatures and that we are part of nature. The natural systems that sustain life on our planet are right here. How we contribute to those systems is up to us.

Thanks to you, we can support nature near and far. Your gift helps keep our communities green, vibrant, and prosperous.



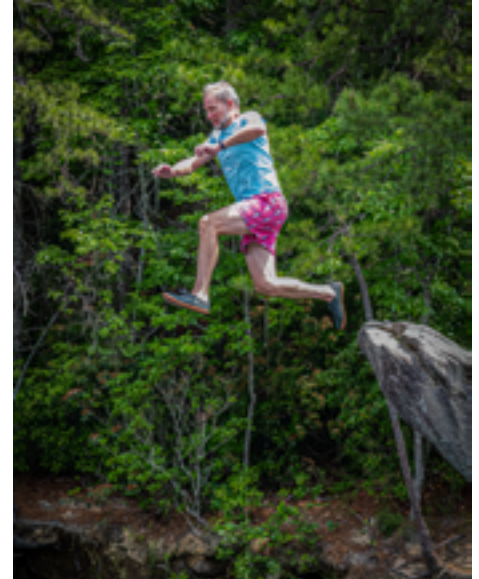
Andrea Cooper, Executive Director



Andrea Cooper, Brad Wyche, and Aldon Knight at Venture X in Greenville.

UF STAFF FUN DAY

We spent a fantastic summer day on the water with Jocassee Lake Tours.



Cumulative Gift & Legacy Societies

Upstate Forever's Cumulative Gift Societies recognize the total program support given by individuals and entities over the life of the organization.

Includes membership and contributions, sponsorships, and planned gifts received by Dec. 31, 2022.

THE FOUNDERS SOCIETY (\$1 MILLION & UP)

Anonymous, In Memory of Marjorie E. Schmidt
The Mary Black Foundation
The South Carolina Conservation Bank
The South Carolina Department of Health & Environmental Control
The V. Kann Rasmussen Foundation
Tommy & Harriet Wyche
Brad Wyche & Diane Smock

THE UPSTATE CHAMPION SOCIETY (\$500,000 - 999,999)

Anonymous
Community Foundation of Greenville
Fujifilm Manufacturing
Glenn & Heather Hilliard
Hollingsworth Funds
The U. S. Environmental Protection Agency
Alice M. Wald

THE 1998 SOCIETY (\$250,000 - 499,999)

James & Kathy Barr
The Graham Foundation
The Hipp Foundation
Jolley Foundation
Naturaland Trust
Pete & Sally Smith Foundation
The Phifer Johnson Foundation
Prisma Health System
Renewable Water Resources
The South Carolina Department of Natural Resources

THE STUMPHOUSE SOCIETY (\$100,000 - 249,999)

Anonymous
Mike & Laura Baur
Blue Cross & Blue Shield of South Carolina
Duff & Margaret Bruce
Callie & John Rainey Foundation
Brad Campbell
Charles Stewart Mott Foundation
Conestee Foundation
Daniel-Mickel Foundation
Lillian Darby
Greenville Transit Authority
Greenville Women Giving
Warren Guinn
John & Priscilla Hagins
Doug Harper
Harriet Wyche Memorial Endowment
J. M. Smith Foundation
John I. Smith Charities
Thomas & Sandra Kester Family
Dana & Anna Leavitt
Erwin & Nancy Maddrey
Genevieve Manly
Mast General Store
Milliken & Company
North Main Park/Courtney Shives Memorial Park
The Oak Hill Fund
Palmetto Bank
Jack & Cindy Plating
Priester Foundation
ScanSource
The Spartanburg County Foundation
Spartanburg Water System
Bruce Snyder
TD Charitable Foundation
Mark & Starla Taylor

THE COMMUNITY PARTNERS SOCIETY (\$50,000 - 99,999)

The Airey Lawfirm
Anderson Joint Regional Water System
BMW Manufacturing Company
John & Laura Bauknight
Sally & Dan Coenen
Andrea & Edwin Cooper
Fannie Cromwell
Dianne Culbertson
The Duke Energy Foundation
Energy Foundation
Gally & Fielding Gallivan
Clark & Katie Gallivan
The Genevieve & John Sakas Foundation
Allen & Nikki Grumbine
Roger & Marianna Habisreutinger
Robert & Rebecca Hartness
Brice & Reid Hipp
Clark Jernigan & Celia Thomas
Carson & Andrea Johnson
Emelyn & Neil Jones
Bill & Libby Kehl

Ross & MK Kester
Lee & Anne Kester
Gloria Larkin
Paul & Sara Lehner
Mary Peace Sterling Foundation
Bobby & Christie Nachman
Carlton & Brenda Owen
Pacolet Milliken Enterprises
Leon & Barbara Patterson
Piedmont Natural Gas
Robert & Christina Rogers
Minor & Hal Shaw
Hamp Sherard
David & Angela Shi
Stephanie & Bart Smith
Speights & Runyan
Startex Jackson Wellford
Duncan Water District
The Stringer Foundation
The Turner Foundation
The Tyger River Foundation
Wells Fargo
Weyerhaeuser Company
Neal & Faye Workman
The Wyche Law Firm

THE LEGACY SOCIETY (THOSE WHO HAVE PUT UP IN THEIR ESTATE PLANS)

Gilbert & Barbara Allen
John Bissell & Jane Chambers
Dennis & Jane Chastain
Gary Davis
Jo & Bob Hackl
Ed Hall
Bill & Emily Holt
Maureen Johannigman
Ed Krech
Stacey Lindsay & Terry Shager
Joyce P. Murphy
J. Tony Rackley
Rita & Robert Rao
Hamp Sherard
David & Angela Shi
Priscilla Ann Woodside
Brad Wyche & Diane Smock
Tommy & Harriet Wyche
Stephen & Julie Ziff

NEXT-DOOR NATURE

SHARING SPACE,
MAKING AMENDS &
FINDING WONDER
IN LANDSCAPES
CLOSE TO HOME

Pristine mountain ranges and remote rivers may be spectacular, but there is something particularly special about the familiar, everyday ecosystems persisting within the urbanized landscape — our backyards, neighborhood greenspaces, and downtown parks.

In this issue of the *Upstate Advocate*, we call attention to the wildness close to home. We hope it inspires you to explore and protect the beautiful, complex, and fragile web of life humming along right outside your door. >>



Healing urban ecosystems — the natural way



By Allie Martinsen

LAND POLICY MANAGER

amartinsen@upstateforever.org

Humans build things. It's what we do. We leave our mark on our environments, and too often, the environment comes out of that interaction worse for wear. It is a difficult balancing act: protecting the sensitive natural systems that sustain life while accommodating community development needs.

Urbanized areas, in particular, face significant challenges to maintaining a healthy environment. With the Upstate's population rising, local cities and municipalities are grappling with how to accommodate rapid growth in a way that preserves the natural resources we depend on for a healthy and happy community.

While there are no one-size-fits-all answers, many communities are successfully addressing negative

development impacts through effective, low-cost nature-based solutions.

Urban ecosystems face unique challenges.

Human activity and intensive land use often disrupt natural systems, leading to complex — and sometimes dire — consequences. When the need for city infrastructure like roads, parking lots, buildings, and homes increases, the natural environment pays the price, and we see how the loss of one natural element can lead to a cascade of urban issues.

Our roads and parking lots are impermeable surfaces, meaning they cannot absorb rainwater. This causes more stormwater runoff, erosion, and decreased soil quality along with increased sediment and pollution in waterways. When combined with the loss of old growth, native trees, impermeable surfaces lead to worse flooding events.

Urban environments experience tree loss, too, leading to

How developed land impacts urban waters



By Rebecca Wade

CLEAN WATER SPECIALIST

rwade@upstateforever.org

Urban waters are the waterways that run through densely populated areas. They take on large amounts of pollution from a variety of sources including contaminated runoff from residential, commercial, and industrial properties, trash, and untreated wastewater.

However, if maintained properly, urban waters can provide positive community benefits like recreation, fishing, environmental education, and wildlife habitat.

The easiest, most cost-effective way people can protect our urban waters is by planting and maintaining riparian buffers: natural strips of vegetation along a stream, river, lake, or pond.

Riparian buffers protect water quality by capturing and filtering pollutants before they wash off land surfaces into local waterways.

Many urban waters are subject to abuse from poor land use practices, development, and waterway misuse. Repairing degraded and eroded streambanks and planting native vegetation helps stabilize them, and it is low cost. In collaboration with Clemson University Cooperative Extension, our

Clean Water team has completed two streambank repair projects in Anderson and Greenville counties.

In the Upstate, residents can help maintain healthy urban waterways by volunteering for water quality monitoring with SC Adopt-A-Stream and litter cleanups. SC Adopt-A-Stream is a citizen science program that monitors the chemical, physical, and biological quality of waterways across the state.

To volunteer in a litter cleanup, consider visiting our local partner organizations for more information: Friends of the Reedy River, Greer CPW, Palmetto Pride, and Lake Hartwell Partners for Clean Water.

habitat loss, impacted water cycling, and warmer temperatures. If the old trees go, then the species who called them home usually follow suit. Young and ornamental trees do not provide the same habitat for urban wildlife who we depend on to keep all organisms in natural balance. Young trees also fail to provide the same amount of shade and cooling to our urban landscape, and ornamental, non-native trees are not as drought resistant or adapted to our local environment.

These are just a few of the problems that can befall an urban environment. If these issues are not addressed, they can lead to significant loss of biodiversity, property, and quality of life.

Nature-based solutions can mitigate development impacts

Increasingly, communities are turning to a nature-based approach to mitigate and prevent the negative impacts associated with development. According to the International Union for Conservation of Nature, nature-based solutions "harness the power of healthy ecosystems to protect people, optimize infrastructure, and safeguard a stable and biodiverse future." They are based on the principle that natural, healthy ecosystems provide tangible economic,

Continued on page 8



MORE PAVEMENT MEANS MORE RUNOFF

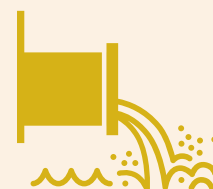
An inch of rain generates 36 times more stormwater runoff per acre on pavement than on natural forested land. Preserving urban greenspace mitigates these impacts.

Source: US Geologic Survey / Graphic from South Carolina Conservation Bank Annual Report 2020

In its natural state, **land filters and absorbs stormwater** — wetlands & forests are especially good at this.

As development increases, natural land is converted into **impermeable** surfaces that water can't pass through (like parking lots, roofs, & roads)...

... so instead of being absorbed, water rushes along the land at high speeds.



Contrary to what many people believe, most stormwater is NOT treated. **This means whatever's on the ground ends up in our waterways.**



Unchecked stormwater from development and human activity causes a lot of problems for urban waters:



EROSION wears away river & stream banks, which is dangerous & costly to repair.



SEDIMENT clogs waterways & carries pollutants like bacteria, heavy metals, & nutrients.



FLOODING is extremely dangerous & destructive and becoming more common in the Upstate.



POLLUTION like trash, oil, pet waste, & fertilizer is picked up & carried into nearby rivers or streams.



Students at Rainbow Lake Middle School in Chesnee plant a rain garden to help absorb stormwater runoff, prevent erosion, and attract native pollinators.

Continued from page 7

health, and quality-of-life benefits in a way that is lower in cost and more effective than artificial systems.

Examples of nature-based solutions:

- **Adding native trees and plants** promotes biodiversity, improves storm water absorption, prevents erosion, and helps keep the local environment resilient and adaptable. They are more disease resistant than non-natives and are already adapted to local climates and the animals who thrive alongside them.
- **Leaving riparian buffers** — the strip of vegetation along a stream, river, lake, or pond — intact is the most cost-effective way to reduce stormwater runoff, protect drinking water quality, minimize erosion, improve habitat, mitigate flooding, moderate in-stream temperatures, and replenish groundwater.
- **Streambank repair and restoration** address unhealthy streambanks that suffer from erosion and instability through specialized techniques like revegetating streambanks with native plants and trees and addressing issues within the stream channel.

- **Rewilding urban spaces** involves reintroducing and restoring native plants and animals to an urban environment that's been heavily developed or degraded. We can achieve this with roof gardens, wildlife highways, invasive species removal, pocket forests, and native plantings.
- **Investing in green infrastructure** uses nature to improve stormwater management, climate adaptation, heat stress, biodiversity, and more. Examples include rainwater harvesting, rain gardens, permeable pavements, downspout disconnection, bioswales, urban pocket forests, green alleys, green schoolyards, and low-impact development.

These adaptive and responsive solutions are sensitive to context and place, and the strategies selected will look different from community to community.

Local efforts to strengthen urban ecosystems

There are plenty of local initiatives underway across the Upstate. For example, TreesUpstate and the Greenville County Redevelopment Authority have partnered

through a NeighborWoods initiative to improve tree canopy in low- to moderate-income neighborhoods.

In Anderson County, the Rocky River Conservancy is conducting restoration efforts and water quality testing in Rocky River Nature Park, a 148-acre public preserve protected by a UF conservation easement. TreesUpstate and UF are working alongside the Conservancy to add native plants and improve habitat quality. *See sidebar to learn about some Upstate Forever work on nature-based solutions.*

City/County councils, planners, private companies, and residents alike must work together to identify more opportunities for investments in nature-based solutions. The ongoing management, maintenance, and evaluation of implemented solutions are also crucial to success.

A proactive, nature-based approach to land use

While nature-based solutions are a great way to address the negative impacts of development, we should also work to prevent those impacts before they happen through smart land use policies. Too often, local land use policies are created without adequate consideration for the irreplaceable, tangible benefits that healthy ecosystems provide for communities.

In the Upstate, we need robust local policies — at all municipal levels — that more strongly value ecosystems and prioritize nature-based solutions to maintain a healthy environment alongside development.

From a planning perspective, communities and local council members can work together when drafting comprehensive plans, zoning ordinances, and landscape ordinances to ensure that concern for nature is at the forefront.

Decisionmakers need to ensure that nature-based solutions include concerns for and input from low-income areas and historically disadvantaged areas. Doing so will ensure communities most likely to be disproportionately impacted by a changing climate will have a seat at the table.

Community benefits, naturally

The benefits of nature-based solutions are innumerable. They create spaces that are more harmonious for both people and nature, and they strengthen cities and communities by enhancing biodiversity, saving species, improving city microclimates, reducing air pollution, diminishing the urban heat island effect, and mitigating flood risk.

Even if our first steps toward a greener future are small and stumbling, we can make a collective impact by creating a future that is wild, bountiful, and blooming. 🌱

UF's work on nature-based solutions includes:

Promoting funding sources for more greenspace conservation

Local funds can be used as matching dollars to help leverage conservation grants from federal, state, and private sources — making applications from Upstate organizations more competitive in the grant-seeking process. UF has advocated for increased conservation funding in a number of Upstate counties.

Strengthening tree canopy and preservation through policy change

Our Land Planning and Policy team has been working to strengthen local ordinances that enhance tree canopy, support tree preservation, and champion native species in municipalities across the Upstate.

Mitigating the impact of invasive species on local ecosystems

Our Land Conservation team has worked tirelessly to provide enhanced outreach and education on habitat restoration, invasive species management, and plant conservation by working with Upstate property owners who hold conservation easements.

Reducing bacterial pollution in rivers

Thanks to SCDHEC funding, we help landowners in critical areas by offsetting costs on projects that reduce bacterial pollution, such as septic tank repair/replacement and fencing cattle out of streams.

....plus many more projects!



To learn more about our work advancing nature-based solutions, sign up for our e-lists by scanning this QR code or visiting upstateforever.org/email

Who's who in your backyard

There is so much life to see right outside your own window, whether you live in an apartment, the city, or the suburbs. Spot the following native Upstate species or seasonal migrators at home or in your local park. Use tips throughout this issue to help you attract, identify, photograph, and protect these special regional creatures.



Southeastern five-lined skink

Eumeces inexpectatus

Common across the state, this brightly tailed lizard is very active during the day from the woods to your backyard. They exhibit “autonomy,” meaning they can purposely break their tail when in danger, but don’t worry, they can regrow it. In the summer, mothers brood their eggs and protect them from predators until they hatch.



Eastern tiger swallowtail

Papilio glaucus

South Carolina’s state butterfly can be spotted all over the state in spring and summer. They are usually solitary and flutter through woodlands and neighborhoods alike. Sometimes you can spy a group of males “puddling” together in damp soil where they take in sodium ions and amino acids essential to their health.



Carolina wren

Thryothorus ludovicianus

You might hear this feisty little bird singing or chastising intruders before you see it. Spot these animated birds hopping around your shrubs or woodpiles or probing nooks and crannies for insects. These little explorers often nest in a variety of places, from your mailbox to your garage or even an overturned watering can.



Eastern cottontail rabbit

Sylvilagus Floridanus

Have you ever seen an eastern cottontail escape a predator? They can hop up to 18 miles an hour! They're also known to snack on your grass or garden greens. Although they reproduce rapidly and feed many predators, expanding development and loss of edge habitat have reduced their population faster than predators can catch them.



Striped skunk

Mephitis mephitis

Populations of striped skunk are greatest in the Piedmont where they might den under farm buildings or homes. Their smelly defense mechanism gives them a bad reputation, but they are rarely aggressive and spray as a last resort. They can be beneficial because they feed on large numbers of agricultural and garden pests.



Carolina mantis

Stagmomantis carolina

In 1988, the Carolina mantis was designated the state insect of South Carolina. This brownish-tan to light green insect grows to approximately 2.5 inches and is not to be confused with invasive Chinese and European mantids. Keep your eye out for this iconic state insect in spring and summer when you can spot them using specialized, raptorial front legs to grasp prey.



Raccoon

Procyon lotor

While often considered a nocturnal nuisance who scavenges around homes, raccoons can play an essential role in the urban ecosystem. They're opportunistic eaters and help keep the streets clean by eating carrion (dead animal carcasses) left by human motorists. They also assist in seed dispersal, pest control, and are essential prey for neighborhood raptors and snakes.

Continued >>

"Who's who in your backyard," continued



PATRICK COIN / WIKIMEDIA COMMONS

Southern short-tailed shrew

Blarina carolinensis

This Upstate resident is not what it appears. Shrews are not rodents but are more closely related to hedgehogs and moles. They prefer moist, well-drained habitats where they can burrow for food and shelter easily. Their saliva is mildly venomous and paralyzes their insect prey.



PATRICK COIN / WIKIMEDIA COMMONS

Cope's gray treefrog

Hyla chrysoscelis

This nocturnal treefrog is common throughout the southeast, but you will likely only see them at night during late spring and summer. They are rarely on the ground and prefer to be in trees or shrubs where they catch insects. If it gets cold enough, they will freeze in the winter to survive!



Eastern rat snake

Elaphe [Pantherophis] obsoleta

A Piedmont mainstay, the rat snake is a great backyard ally. As their name implies, they only pose a threat to rats and similar rodents. They are nonvenomous constrictors and will scale trees to find a meal in nests. When startled, they will take a "kinked" posture and remain motionless or even vibrate their tail.



Carolina chickadee

Poecile carolinensis

These tiny backyard and woodland inhabitants are common year-round. Find mated pairs hopping among twigs and branches, hammering open seeds, and nesting in tree cavities or nest boxes in the spring. During winter, you'll see or hear them traveling in mixed flocks with titmice, Carolina wrens, a variety of small woodpeckers, and warblers.

Spotted any cool critters on your property lately? Send a photo to info@upstateforever.org!



Ruby-throated hummingbird

Archilochus colubris

These tiny spring migrators weigh less than a nickel and are among Upstate birders' favorites, as they are the only hummingbird species that nests east of the Mississippi River. Their impressive flight patterns and bossy attitudes make them endlessly entertaining. Attract them to your yard with native flowers.



Twin-flagged jumping spider

Anasaitis canosa

This ant specialist is easily recognized by its bright white markings on pedipalps (appendages near the face) that resemble white flags when waved around. This species is harmless to humans and does not bite. If you spot one in or around your home, enjoy watching their acrobatics as they control the ant population.

Continued on page 14 >>

Protecting high-quality habitat

UF's nationally accredited land trust works with landowners both public and private to permanently protect properties across the Upstate through conservation easements.

When deciding whether to pursue property conservation, our top priorities are water quality and high-quality habitat for plants and animals. But what, from our perspective, makes for a high quality habitat?

We utilize a Critical Lands Map — developed in partnership with Furman University with the generous support of Pacolet Milliken Enterprises — to identify the region's most environmentally sensitive lands in regards to water quality and high-quality habitat and prioritize the protection of those properties.

Criteria considered when evaluating Critical Lands include, but are not limited to, parcel size; presence of significant rivers, streams, or wetlands; prime and important farmland soils; threat of development; and, of course, core habitat for native plants and wildlife, such as the species you see on these pages.

So what makes a habitat high-quality? Here are some of the criteria we consider...

Location relative to other protected

lands: Parcels adjacent to or near lands protected by UF and other conservation organizations can help establish wildlife corridors and contiguity of natural space.



Presence of indicator species: Certain invertebrates, amphibians, reptiles, plants, and other organisms can reflect the health of an environment through their presence, abundance, and even absence.



Presence of rare or endangered species:

We work to protect known habitat of several of the Earth's most rare plants, like Oconee bells (*Shortia galacifolia*) and bunched arrowhead (*Sagittaria fasciculata*), as well as endangered fauna including Rafinesque's big-eared bat and Cooper's hawk.



"Who's who in your backyard," continued



Luna moth

Actias luna

Another creature of the night, the luna moth flutters like a fairy through woods and backyards. They make their way with large 5-6 inch wings. Though named for the Roman goddess of the everlasting moon, this creature's life cycle is short. Once they undergo metamorphosis, they emerge without a mouth and live only long enough to mate.



Eastern small-footed bat

Myotis leibii

Common only in the Blue Ridge region, this bat is South Carolina's smallest species. It weighs a mere 3-5 grams and is only about 3 inches long! Like many bats, it is an insect-lover and emerges at dusk to feed. Their homing instinct is very strong, and they return to the same cave to hibernate even if placed in a different location.



Red-shouldered hawk

Buteo lineatus

A regal raptor, the red-shouldered hawk is of moderate conservation concern in SC. They can be seen soaring over forests and neighborhoods or perched in tree branches or on utility wires. During courtship, they will fly together and occasionally roll over on their backs, flying upside down for short distances.



Virginia opossum

Didelphis virginiana

One of the most adaptable animals in North America and the region's only marsupial, the Virginia opossum thrives in nearly all Upstate environments. They are often misunderstood and misidentified as a rodent. These hardy, disease resistant animals are quite beneficial, eating up to 5,500 larval ticks a week! 🌿

Your gift to Upstate Forever helps protect critical habitat for wildlife.
Support our conservation work at upstateforever.org/donate



Native wild muscadines are well adapted to this ecoregion, meaning they need far less maintenance than non-native species.

5 ways to cultivate a living landscape

Whether your space is a large and luxurious lawn, a compact apartment balcony, or a plot in a community garden, you don't need to take on daunting projects to make your property a welcoming habitat for local wildlife. Try one or more of these simple projects to make your property more nature friendly and full of life.

Ditch the manicured lawn

Across the United States, the movement to replace high-maintenance and costly exotic grass lawns is taking root. You can begin to adopt this approach by swapping a manicured lawn that requires frequent mowing to a naturalistic meadow planting of native grasses, such as little bluestem, purple top, or broomsedge.

This more natural approach to groundcover will improve

the habitat value of your yard while only requiring an annual mowing. Plus, their bronze foliage fluttering in the autumn breeze provides a stunning aesthetic completely unique to native grasses!

Leave the leaves

That's right, we'll give you an 'out' on this tedious autumn task. Leaving spent foliage in place has many benefits, including a healthier lawn. Just mow over a thin layer of leaves to help them return nutrients to the grass and soil underneath — in addition to providing important habitat for overwintering wildlife and free mulching and compost material. Plus, you'll save countless hours of bagging leaves or listening to the incessant whirr of a leafblower!

Continued on page 16 >>



Carolina Buckthorn

Native plant resources

Joining the Upstate Chapter of the South Carolina Native Plant Society (SCNPS) grants access to invaluable resources, including monthly meetings, field trips, workshops, and more. Plus, the SCNPS hosts a spring and fall native plant sale each year where you can purchase from a selection of dozens of species of flowers, shrubs, grasses, vines, and specialty plants.

Learn more at scnps.org

The Clemson University Cooperative Extension, or Clemson Extension, manages robust libraries of resources in their online Home & Garden Information Center and Carolina Yards Plant Database. You can also attend in-person events and workshops on various topics, as well as speak to local Extension Agents located in each county.

Learn more at

clemson.edu/extension

Continued from page 15

Plant more native species

Consider utilizing native plants for a cost-effective, low-maintenance yard that flourishes. Because plants native to our eco-region are well-adapted to its climate, geography and hydrology, they often require no irrigation or fertilizer, can help control stormwater runoff and contribute to water quality, and can provide an optimum habitat for wildlife including butterflies and songbirds. See sidebar at left for native plant resources.

Put rainwater to work

By connecting your home’s gutter and runoff systems to a rain barrel, you can harvest rainwater to use for watering your lawn and garden. This project is less intimidating than you may think. In fact, many local water utilities and public works divisions offer workshops where participants can build and take home a rain barrel — check with yours for upcoming opportunities!

Convert scraps into compost

Did you know that more than 30% of the waste Americans throw away could actually be composted instead? Composting your own food and compostable household waste is a fantastic way to keep these materials out of landfills, where they take up space and release greenhouse gases, while creating a healthy, rich supplement for your garden and landscaping.

You’ll need to balance “browns” (carbon-rich materials, such as dead leaves, branches, and twigs) and “greens” (nitrogen-rich materials, such as grass clippings, vegetable waste, fruit scraps, and coffee grounds) and keep these ingredients moist and mixed to enjoy a rich soil additive in no time. Learn more at upstateforever.org/compost101

WHAT TO COMPOST:

- ✓ Fruit & vegetable scraps
- ✓ Eggshells
- ✓ Coffee grounds & filters
- ✓ Tea bags
- ✓ Nut shells
- ✓ Shredded newspaper, cardboard & paper
- ✓ Sawdust & wood chips
- ✓ Yard trimmings, hay, straw, leaves, & grass clippings
- ✓ Dryer & vacuum lint
- ✓ Cotton & wool rags
- ✓ Hair & fur
- ✓ Fireplace ashes
- ✓ Houseplants

WHAT NOT TO COMPOST:

- ✗ Black walnut tree leaves or twigs
- ✗ Coal or charcoal ash
- ✗ Diseased or insect-ridden plants
- ✗ Fats, grease, lard, or oils
- ✗ Meat or fish bones & scraps
- ✗ Pet waste
- ✗ Dairy products (butter, milk, sour cream, yogurt) or eggs
- ✗ Yard trimmings treated with chemical pesticides

Provide shelter, food, and water sources for wildlife on your property

Do you long to listen to birdsong in the morning, watch the delicate flutter of a butterfly, or hear shrieks of delight as the kids spot a skittering lizard in the backyard? You can help encourage these visitors to stick around by supplying resources they need to thrive. Consider installing bird houses, bat boxes, “toad abodes,” or other shelters. Provide a variety of food sources including native plants, berries, fruit trees, and bird seed, as well as a clean water source for drinking and bathing.

Become a certified wildlife habitat

Once you’ve completed the projects above, you’ll be well on your way to achieving “Palmetto Wildlife Habitat” status, a recognition bestowed by the South Carolina Wildlife Federation via the National Wildlife Federation.

To become certified, ensure your habitat provides food, water, shelter, and places to raise young, and implements sustainable practices with a goal of 50-70% native plants that provide multi season bloom. *Learn more at scwf.org/habitat-landing-page* 🌿



Attract birds and other wildlife to your yard by supplying shelter, food sources, and clean water for drinking and bathing.

Up close and personal with wildlife



By Cathy Bester

PROGRAM & EVENT COORDINATOR

cbester@upstateforever.org

Do you have a curiosity about the world around you? A great way to explore nature is through the lens.

You don't need expensive gear to shoot stunning nature images. While DSLR and mirrorless cameras offer a wide range of exposure controls and lenses, modern cell phones have truly amazing camera capabilities! Whatever equipment you have access to is a great place to start your nature photography journey and, with a few basic tips, you can get closer to achieving that perfect shot. >>



Consider composition

When setting up your image, slow down and be deliberate. You should consider if a portrait or landscape orientation is best to showcase your subject. You can decide to fill the frame with your subject or shoot wide to include its natural habitat.

You can add more interest to your images by shooting your subject from a perspective other than your eye-level. Get down low to shoot an image of your subject at their level or move higher to give a bird's eye view!

Don't forget to pay attention to the background in your composition! If it is distracting, try shooting from another angle.

Work with natural lighting

The best time to shoot outdoors is during the morning and early evening. If you are limited to midday, wait for cloudy days or search for shade — overhead sunlight can be harsh.

Morning and evening hours are also when wildlife is typically most active, giving you the best opportunities. Explore your creativity by considering different angles of natural light, including backlighting and side-lighting on your subject.

Get to know your subject

If you take the time to know your subject, its movements, feeding habits, and other behaviors, you will capture better images. During your observations, please be sure to maintain a safe distance to avoid interfering with your subject's natural behaviors. The most compelling nature photos often show behavior of wildlife, such as butterflies getting nectar from flowers, or birds feeding their young.

If you are unsure of the species you are photographing, apps and guide books can help you identify them and better understand their habits.

On iNaturalist, experts from around the world will assist in identifying species through images. Seek is another app which is fun for families to refer to while exploring biodiversity in the natural world. Your local library or outdoor outfitter may also have books available to assist in species identification. 🌿

ALL PHOTOS BY CATHY BESTER

View more on Instagram: [@cathleenbester.photography](https://www.instagram.com/cathleenbester.photography)



Black swan cygnet



Green tree frog



Eastern bluebird



PHOTOS BY CATHY BESTER

CLEAN ENERGY

Electric Vehicle Equity Roundtable: a great success

Upstate Forever & Sustaining Way hosted an Electric Vehicle Equity Roundtable earlier this year at Feed & Seed Co.'s Hayne Hipp Community Room in Greenville. The event was the first in our region and brought together a diverse group of experts, community leaders, and Upstate residents to discuss expanding access to electric vehicles, improving infrastructure, increasing mobility, and decreasing transportation inequities in Upstate SC.

Many thanks to the guest panelists and presenters who participated:

Andrew Predmore
(moderator), Executive Director of The Shi Institute for Sustainable Communities at Furman University

William Bryan,
Southeast Energy Efficiency Alliance Director of Research

Stan Cross,
Southern Alliance for Clean Energy Policy Director

Hannah Slyce,
City of Greenville Sustainability Planner

Stacey Washington,
SC Energy Office Deputy Director

Rep. Wendell Jones,
SC House District 25

Erin Predmore,
Greenville Connects Executive Director

Dr. Jiangfeng Zhang,
Clemson University Dept. of Automotive Engineering Associate Professor

GP McLeer,
Executive Director of the Upstate Mobility Alliance, Mayor of Fountain Inn

Rene Kelly,
SC Energy Office Clean Transportation Coordinator, Palmetto Clean Fuels

OUTDOOR RECREATION

Progress on transformational projects in Spartanburg County

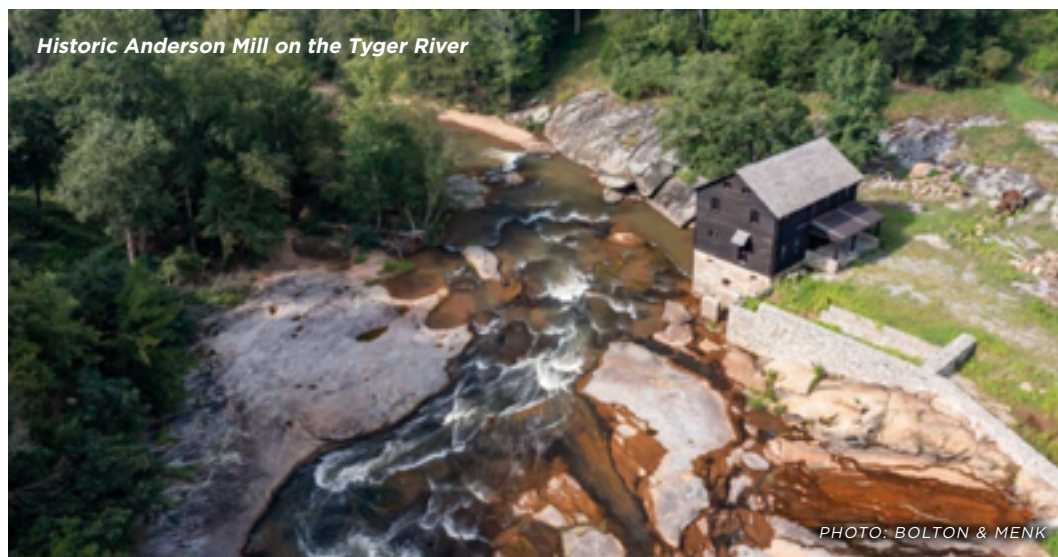
The Saluda Grade Trail is one step closer to becoming a reality! Many thanks to the SC and NC legislatures for allocating significant funding towards the purchase of the unused 31-mile Saluda Grade rail corridor, which runs through Northern Spartanburg and Greenville Counties into the mountains of Western North Carolina.

The SC Legislature has allocated \$15 million total towards the purchase of the rail corridor — \$5 million in the 2022-23 budget, and \$10 million in the 2023-24 budget. The NC legislature's recent budget included \$12 million over two years. We are grateful for these major investments in the Saluda Grade Trail, which will be a tremendous community amenity and economic asset.

The Saluda Grade Trail Conservancy (Upstate Forever, Conserving Carolina, and PAL: Play. Advocate. Live Well.) has a signed agreement with the railroad establishing the purchase price and other terms of a future purchase with Norfolk Southern. We expect to close on the rail corridor within the next two years. *Learn more and sign up for the e-newsletter at www.saludagraderail.org.*

The Tyger River Recreation Region is a new and exciting initiative underway in Spartanburg County. Along with our partner The Tyger River Foundation and consultant, Bolton and Menk, Inc., we are working to develop a master plan for this community-driven initiative. The project builds upon previous work by The Tyger River Foundation, including restoring the historic Anderson Mill and providing multiple river access points developed in partnership with The Tyger River Blueways Coalition and Spartanburg County Parks and Recreation.

The proposed project would cover 20 river miles and provide 10 hours of class I – IV paddling, 10 public park spaces, and the Tyger River Nature Center, located on the Foundation's property at the confluence of the North and South Tyger rivers. The Nature Center will serve as a regional destination for education, recreation, and event-based eco-tourism. *For more information, visit www.tygerriverrecreationregion.com.*



Historic Anderson Mill on the Tyger River

PHOTO: BOLTON & MENK

Here's how to stay in the loop between issues of the *Upstate Advocate*.



Follow us on social

We're @UpstateForever on Facebook, Instagram, Twitter, LinkedIn, and TikTok.



Join our email lists

Scan the QR code or visit upstateforever.org/email and select the e-lists you'd like to join:

Anderson, Greenville, or Spartanburg Land Planning & Policy Updates

Land Protection News and Updates

Monthly Newsletter and General Interest Emails

South Carolina Legislative Updates

The Water Log



New conservation easements

As more and more folks discover our region's natural beauty and move to the Upstate, it becomes even more pressing to protect the working lands, forests, and greenspaces that make this area so special, as well as the blueways that are critical to local drinking water. We are pleased to announce our four most recent conservation easements, totaling 317.8 acres protected forever. Many thanks to the forward-thinking landowners, funders, and partners who helped make these projects happen for the benefit of future generations of Upstate residents.



Saluda Dam Acres



Triple Oak Farm

Bishop Branch Pastures

ANDERSON COUNTY | 64 ACRES

Bishop Branch Pastures is roughly 64 acres of agricultural land and wildlife habitat in northwestern Anderson County. Located a few miles from Clemson University and just outside Pendleton, this conservation project permanently protects acres of pastureland, wildlife habitat, and water resources in a rapidly developing region.

Project funders include the South Carolina Conservation Bank (SCCB), Upstate Land Conservation Fund (ULCF), U.S. Department of Agriculture Agricultural Conservation Easement Program, and the U.S. Environmental Protection Agency under a Section 319 Grant through S.C. Department of Health and Environmental Control.

Saluda Dam Acres

GREENVILLE COUNTY | 69 ACRES

Comprised of 69.6 acres, Saluda Dam Acres is nestled between one of Greenville County's busiest thoroughfares and the Saluda River. A pond, wetlands, and creeks flow to the Saluda, paired with lush upland

.....

Upstate Forever's Land Trust partners with landowners to protect the special places they and their communities cherish via permanent conservation easements. Our Land Trust now protects more than 30,000 acres on 150 properties. Email Scott Park, Glenn Hilliard Director of Land Conservation, at spark@upstateforever.org for more information about protecting your property.



Twin Ponds Hunt Club



Bishop Branch Pastures

forest supporting wildlife like bear, turkey, beaver, and deer. The landowner has identified more than 700 species of flora and fauna on the property and is working to restore the property with native grasslands while removing invasive exotic plant species.

Project funders include the SCCB and Greenville County Historic and Natural Resources Trust.

Twin Ponds Hunt Club

CHEROKEE COUNTY | 91 ACRES

Twin Ponds Hunt Club consists of 91.7 acres in Cherokee County that landowners enjoy for outdoor recreation. Two 3-acre ponds are managed as fisheries for bream, crappie, and bass, while surrounding riparian habitat and upland forest serve as habitat for doves, deer, and turkey. This privately owned property will continue to be managed as a natural retreat for families and wildlife alike.

Project funders include the SCCB and ULCF.

Triple Oak Farm

SPARTANBURG COUNTY | 91 ACRES

Triple Oak Farm, located on 91.8 acres in Spartanburg County, is a registered South Carolina Century Farm that has remained in the same family for 6 generations. While much of the farm's original land now lies under Lake Bowen, the original homesite from 1866 is still located on the land. The protection of Triple Oak Farm, approximately one mile from the Cherokee Foothills Scenic Highway, helps ensure this region experiencing intense development pressure retains working lands and rural vistas in perpetuity.

Project funders include the SCCB and ULCF.

Sign up for our Land Protection email list at upstateforever.org/email to get the latest updates on initiatives that support increased funding for conservation in the Upstate.

NEW BOARD MEMBER

Read full bio at upstateforever.org/board

Kate Konopasek graduated from Wichita State University in 2001 with a BBA in management, and with her MBA from Baker University in 2010. She worked at Raytheon in Wichita. In 2004, Kate transitioned to Hawker Beechcraft, working in various management and quality improvement roles over the next seven years. Following her time at Hawker Beechcraft, Kate has spent the past eleven years in various positions with Toray Composite Materials America, Inc., focusing in production management roles in the Seattle-Tacoma, WA area until her transition to Upstate South Carolina in 2021. Kate is currently director of manufacturing/plant manager at Toray in Spartanburg.



NEW STAFF

Read full bios at upstateforever.org/team

Ericka Berg was raised in Polk County, NC, where her family has deep roots. Ericka received a bachelor's in biology from Berea College in Kentucky and previously worked at Conserving Carolina in Hendersonville and as Operations Manager for Parks and Grounds with the City of Greenville before joining UF as Land Stewardship Coordinator in April 2023.



Steely Parrott joined UF in April 2023. Born and raised in Albemarle, NC, she graduated from UNC-Chapel Hill with a degree in Geology. Before moving to Spartanburg and joining our team as Land Protection Coordinator, she worked for a land trust in NC for more than five years where she held a variety of positions and developed a passion for protecting land and waterways.



ASK AN ADVOCATE

A devastating blow for wetlands and water quality



By Erika Hollis

CLEAN WATER DIRECTOR
ehollis@upstateforever.org

Dear Ask an Advocate,

*I heard on the news that there was a new Supreme Court ruling weakening wetland protection — and that it impacts the entire country. Isn't all the water protected by the Clean Water Act (CWA)? If some wetlands aren't protected now, then what will happen in our area? **Sincerely, Confused in Cherokee County***

Dear Confused,

Unfortunately, you heard right. In May of 2023, the Supreme Court ruled that as many as half of the country's 118 million acres of wetlands cannot be protected by the Clean Water Act (CWA), which has protected our navigable waters from harmful pollution since 1972. To understand why this is such a devastating blow, it's important to understand why wetlands matter so much.

Wetlands are critical for water quality.

Think of wetlands as a natural sponge — they catch and slow down the flow of water and slowly release it over time, which reduces flooding and erosion downstream.

Wetlands also act as natural filters by trapping sediment and removing pollutants through their dense root systems and absorbing excess nutrients through plant uptake. In this way, wetlands are like the kidneys of watersheds, vital to our health and often overlooked.

Wetlands are so effective at cleaning up pollution, in fact, that they are sometimes used to treat wastewater and they make a difference when it comes to treating our drinking water. Forested wetlands even reduce treatment costs for drinking water sources, making them a critical part of our natural water infrastructure.

What about this Supreme Court ruling?

The case — Sackett v. EPA — began when Michael and Chantel Sackett sought to build a house a few hundred feet

from Priest Lake in the Idaho Panhandle. The Sacketts began to fill the lot with gravel, but the EPA halted work in 2007 after determining that the Sacketts' lot contained a federally protected wetland under the CWA.

In response, the Sacketts sued the EPA in 2008, and over the next 14 years the case made it to the Supreme Court. On May 25, 2023, the majority ruled that the wetlands on the Sackett property were not protected under the CWA because there was dry land between the wetland and other bodies of water.

What are the consequences?

Under this new ruling the law only provides federal jurisdiction to wetlands that are linked to major water bodies through surface connections, not isolated wetlands. This decision defies the science that confirms wetlands have critical underground connections through groundwater systems, not just connections we can see on the land's surface.

Lakes, rivers, streams, wetlands, and groundwater are part of a single system where water is exchanged above and below ground. These wetlands and their underground connections prevent and mitigate floods, filter pollutants, support forestry, and are essential habitat and means for recreation. Without protection from the CWA, these wetlands and their groundwater connections are extremely vulnerable to abuse and pollution.

What does this mean for the Upstate?

According to the National Land Cover Database, wetlands make up 20% of the land in SC, with 6% of those wetlands located in the Upstate. Our unique Upstate wetlands provide important benefits to our state's water resources by helping protect SC's headwaters, which include drinking water resources.

Without federal protections, many of our region's precious isolated wetlands are left exposed to the increasing demands of development.

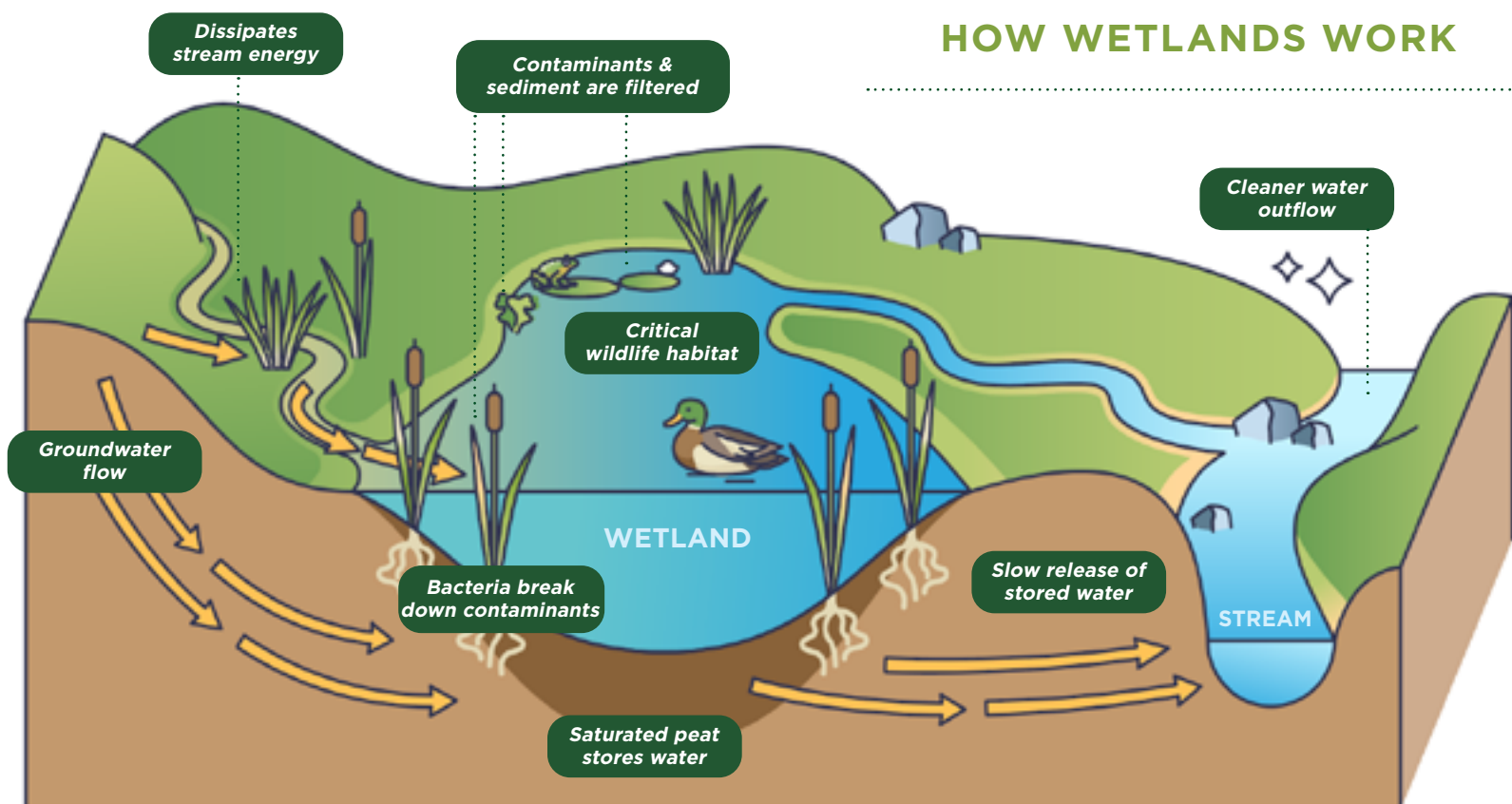
It is critical that Upstate residents remain vigilant and empowered to advocate for wetlands in our communities. Individual states can choose to enact stronger wetland protections — the CWA is just a starting point for protecting water bodies.

You can reach out to your state elected officials to request expanded protections for SC's wetlands. To find your SC legislators, visit scstatehouse.gov/legislatorssearch.php

To stay informed on this and other water-related issues, sign up for our Water Log e-newsletter at upstateforever.org/email or scan this QR code with your phone or tablet.



HOW WETLANDS WORK



FOREVERGREEN LUNCHEON

We are grateful to the sponsors, vendors, staff, board members, speakers, and guests who helped make this one of our best awards luncheons yet. In addition to the 2023 awards program, this event included a celebration of Upstate Forever's 25th anniversary.

2023 Award Recipients



The 2023 ForeverGreen Award recipients (left to right): Ben Duncan, The Hon. Chandra Dillard, Dr. Joe Lesesne, and Glenn Hilliard

TOMMY WYCHE LAND CONSERVATION CHAMPION

Glenn Hilliard, for his tireless advocacy for trails, green spaces, and natural places, and his leadership in the Saluda Grade Trail initiative.

CLEAN WATER CHAMPION

Ben Duncan, South Carolina Chief Resilience Officer, for his determined advocacy at the state level for water quality and smart approaches to resource protection.

PUBLIC SERVANT OF THE YEAR

The Hon. Chandra E. Dillard, for her consistent voice in support of land and water protection issues, sustainable community development, and affordable housing.

BRAD WYCHE EXTRAORDINARY ACHIEVEMENT AWARD

Dr. Joe Lesesne, for a lifetime of service to the natural world; dedication to UF as an advocate, board member, and board chair; and common-sense conservation leadership.



EMERALD SPONSORS

Thank you to our 2023 ForeverGreen sponsors!



SPRUCE SPONSORS



UBS Financial Services, Inc.
The Gullivan Group
Empowering Family Legacies



GreenvilleWater



FURMAN
THE SHI INSTITUTE FOR
SUSTAINABLE COMMUNITIES



CEDAR SPONSORS



MADDREY &
ASSOCIATES





PHOTOS BY CATHY BESTER & MEGAN BURTON

Learn more about this year's ForeverGreen Award recipients at upstateforever.org/blog/forevergreen-luncheon and watch the awardee videos at our YouTube channel [UpstateForever](https://www.youtube.com/UpstateForever).



Protecting Land & Water | Advocacy | Balanced Growth

507 Pettigru Street, Greenville, SC 29601
201 E. Broad Street, Suite 1C, Spartanburg, SC 29306

www.upstateforever.org



Please recycle when finished

WHY WE GIVE TO UPSTATE FOREVER

"We have great admiration for Tommy Wyche's legacy, and the continuation of his conservation efforts by Brad Wyche and Upstate Forever. **There is no other organization in the Upstate that works so efficiently to foster dialogue between different constituencies, and to balance development and conservation forces.** Thank you, Upstate Forever, for taking care of the natural wealth of this region."

— DREW AND SOFIA KEARNS
SUPPORTERS SINCE 2008



Get a limited edition 25th anniversary t-shirt with a gift of \$25 or more

**Printed locally by Dapper Ink. Available in adult sizes S-2XL while supplies last.*

upstateforever.org/donate