The
Upstate Advocate

2026-27 | FALL / WINTER

Tools of the Trade

How the UF team uses technology to protect our region's special places

UF | UPSTATE FOREVER

Thank you, Mast General Store!

UF received more than $11,000 from Mast General Store Greenville's recent round-up campaign and annual Land Trust Day profit share! We are so grateful for the generosity of Mast Store and shoppers.

UPSTATE FOREVER

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.

Offices:

507 Pettigru Street
Greenville, SC 29601

900 S. Pine Street, Suite 1B
Spartanburg, SC 29302

(864) 250-0500

www.upstateforever.org

Staff

Sherry Barrett
Land Policy Director

Sally Boman
Communications Director

Kelsi Bondy
Land Stewardship Specialist

Danna Brown
Asst. Financial Director

Megan Burton
Asst. Communications Director

Michael Coleman
State Policy Director

Joy Dickerson
Financial Director

Lisa Scott Hallo
Deputy Director

Erika Hollis
Clean Water Director

Kaylee Judd
Development Associate

Aldon Knight
Executive Director

Morgan Martin
Director of Development

Allie Martinsen
Land Policy Manager

Leigh McGill
Financial Manager

Josie Newton
Clean Water Manager

Scott Park
Glenn Hilliard Director of Land Conservation

Steely Parrott
Land Protection Manager

Grace Ross
Asst. Director of Development

Boone Ruston
Stewardship Manager

Tre'Dessa Smalls
Land Policy Grassroots Specialist

Laura Smith
Land Conservation Operations Coordinator

Chris Starker
Land Conservation Manager

Ava Thacker
Gifts Processing & Database Coordinator

Lauren Ulich
Director of Stewardship & Land Management

Senior Advisors:

Andrea Cooper
Former Executive Director

Brad Wyche
Founder, Former Executive Director

Board of Directors

Allen Jacoby, *Chair*
John Bauknight, *Vice Chair*
Evan Cramer, *Treasurer*
Jeff Tillerson, *Secretary*
Mike Baur
Phil Feisal
Stinson Woodward Ferguson
Margaret Harrison
Glenn Hilliard
Ann Jaedicke
John Keith
Tom Kester
Kate Konopasek
Maurie Lawrence
Erwin Maddrey
Christie Nachmann
Gary Poliakoff
Mark Wesson

Advisory Council

Paul Agnew
Amanda Bauknight
Juan Brown
Signe Cann
Wes Cooler
Dianne Culbertson
Charles Dalton
Mike Daniel
Bob Erwin
John Frampton
Marianna Habisreutinger
Dave Hargett
Gina Hartness
Wes Hulsey
John Lane
Drew Lanham
Joe Lesesne
Patrick McMillan
Betty Montgomery
Scott Montgomery
Nell Newman
Carlton Owen
Leon Patterson
Joan Peters
Sue Priester
Ron Rash
Hon. Richard Riley
David Shi
Gus Speth
Gaye Sprague
Mark Taylor
Brad Wyche
Kris Yon

From the Executive Director

Today's tech helps shape tomorrow's landscapes.

Our conservation work is a fascinating combination of past, present, and future. We frequently meet with people who own land that's been in their families for decades — sometimes over a century. Many of them are drawn to conservation easements because they want to preserve their property's historic beauty and intact ecosystems from development.

But amid the mature forests, primeval geography, and agricultural fixtures from a bygone era, there's a place for something new: technology like drones, mapping software, and web-based platforms customized for land trusts.

The Upstate Forever team uses tools like Geographic Information Systems (GIS) and Landscape to expedite and enhance our work, making the most of our small staff's capacity and helping us steward vast swaths of land in a fraction of the time it used to take.

Technology also helps us take a more strategic, data-driven approach to land and water protection. This provides us with critical focus and clarity on how to prioritize our efforts — time is not on our side to preserve nature in the rapidly growing Upstate.

While they'll never replace "boots on the ground" or staff know-how, these modern assets give us an edge when it comes to conservation. In this issue of the *Upstate Advocate*, we explore some of the tools and technology our team uses on a daily basis, and how they contribute to our success. *See page 15 for more.*

But our biggest asset when it comes to protecting land and water? Supporters like you. We could not do any of this important work without our donors and partners. Thank you for making our success possible, and helping Upstate Forever as we work to ensure a healthy, beautiful region for generations to come.

Aldon Knight
Executive Director

STAFF FUN DAY

The Upstate Forever team spent some time at Grove Station Farms in Piedmont for our annual summer staff fun day. From meeting the beautiful horses to sharing a delicious lunch from Black Sheep Cafe & Catering, it was a wonderful opportunity to relax, connect, and enjoy each other's company.

Photos by Megan Burton and Elizabeth Swails

Ann Jaedicke joins UF Board

Ann and her husband made the Upstate their home in 2011, drawn by the beauty of the area and the friendly residents. Ann grew up in Texas and graduated from Texas A&M University. In addition to Texas, she lived in London, Kansas City, and the suburbs of Washington D.C.

Ann is retired after a career in financial services, including 34 years as a bank regulator with the Office of the Comptroller of the Currency (OCC), a bureau of the U.S. Department of the Treasury.

After retiring from the OCC, Ann was a Managing Director for Promontory Financial Group, a premier financial services consulting firm in Washington D.C. From 2014 through 2021, she served as a board member for MUFG Union Bank in California, where she chaired the board's risk committee. Ann was honored to serve in these positions.

Ann loves the fresh farm products in the Upstate. Ann's grandparents owned a farm in eastern Kansas, and her husband's grandparents owned a farm in Colts Neck N.J. An ideal Saturday for Ann is a morning at the Travelers Rest farmer's market.

Full bio at ***upstateforever.org/board***

BOARD MEMBER Q&A

Stinson Woodward Ferguson

A Spartanburg native, **Stinson Woodward Ferguson** serves as the City Attorney for Spartanburg. She previously served as an Assistant Municipal Judge for the City of Greenville and as a Substitute Judge for the City of Spartanburg. Prior to her judicial service, Stinson worked for Haynsworth Sinkler Boyd, P.A., practicing in the areas of environmental law and construction and utility litigation; as a staff attorney with the Southern Environmental Law Center; and as Director of the Pro Bono Program for the South Carolina Bar. She is a licensed funeral director and has served in various roles for the J.W. Woodward Funeral Home, Inc. The Funeral Home, founded by Stinson's great-grandfather in 1916, is the oldest, family-owned mortuary in Spartanburg. She has served on numerous boards and is an accomplished author.

She earned her Master of Laws, Environmental Law from Vermont Law School, with a concentration in Energy Law and Policy. She earned her J.D. from the University of Georgia School of Law; and her Bachelor of Arts, French Language and Literature with a Business Administration minor from Converse University.

Stinson is a Certified Sustainability Consultant, a Certified Climate Resilient Officer, and a Certified Sustainability ESG (Environmental, Social, and Governance) Practitioner. She is a graduate of the inaugural class of the Sustainability Leadership Initiative, an innovative leadership development program for future-minded leaders in South Carolina hosted by the Furman University Shi Institute for Sustainable Communities in partnership with Sustain South Carolina. She earned her Certificate in Sustainable Management from Duke University. She earned her Lean Six Sigma Green Belt certification from Purdue University.

What drew you to a career in environmental law?

The reality that without proper action, many valuable, unique, and treasured aspects of the planet will be lost drew me to a career in environmental law. I enjoyed learning about wildlife and science as a child. My parents encouraged my interest by providing access to books and magazines (before the prevalence of the internet) full of photos and information about these topics. I spent a lot of time outside growing up digging up earthworms, climbing trees, and catching fireflies. They also welcomed a variety of pets into our home: fish, turtles, cats, dogs, lizards, birds, snails, frogs, even mice.

As I grew older, I learned more about the negative effects of uncontrolled human activity on wildlife and natural spaces. I also learned more about the effects this type of activity can have

The Upstate means home to me...
I love being able to see the mountains,
being a short drive away from the lake,
a day trip away from the beach,
and close to family and friends.

— STINSON WOODWARD FERGUSON
Upstate Forever Board Member

on human health – literally a life and death issue. This interconnectedness motivated me to gain education and skills to position myself to participate in positive change.

What does the Upstate mean to you?

The Upstate means home to me. I have spent the majority of my life in Spartanburg where I was born. I have experienced life throughout the state, in North Carolina, and in Georgia, but the Upstate remains my favorite place. I love being able to see the mountains, being a short drive away from the lake, a day trip away from the beach, and close to family and friends.

Where's your favorite spot in the Upstate?

Travelers Rest. Like the entire region, it has grown significantly since 2020. But I appreciate that it still has a small town feel with great restaurants, walkability, friendly folks, and exceptional local businesses. I enjoy attending their Christmas parade and going to Shortfield's afterward to have lunch. I even got a picture with Santa a few years ago!

What hobbies do you enjoy?

I enjoy cooking, reading, live music, attending plays and musicals, writing poetry, collecting stamps, and spending time with my friends and family.

Why is Upstate Forever's mission — to protect the critical lands, waters, and unique character of the Upstate — important to you?

UF's mission is important to me for many of the same reasons that I pursued a career in environmental law. Since first introduced to UF over a decade ago, I have been impressed by the manner in which UF is able to further its mission and bring diverse people together on issues and initiatives.

The mission is awesome, but the people at UF responsible for putting it into action are why supporting the organization is important to me.

How to stay in touch with UF in between issues of the Upstate Advocate:

Join our email lists

Our e-lists are the best way to get timely updates on UF issues that matter most to you. Scan the QR code or visit upstateforever.org/email and select the lists you'd like to join. Lists include:

- Land Planning & Policy
- Land Protection News
- Monthly Newsletter & General Interest
- SC Legislative Updates
- The Steward Landowner Newsletter
- The Water Log

Visit our website

www.**upstateforever**.org

Follow us on social

We're @UpstateForever on Facebook, Instagram, X (formerly Twitter), LinkedIn, and TikTok.

ASK AN ADVOCATE

What is a "conservation development"?

By Allie Martinsen
Land Policy Manager
amartinsen@upstateforever.org

Recently, I've seen city and county councils in the Upstate debate standards for conservation development. What is conservation development? How does it differ from conventional subdivision development? ***Sincerely, Interested in Inman***

Dear Interested,

Conservation development — also sometimes referred to as open space residential development or cluster development — is a planning approach that groups homes together on smaller lots to preserve large portions of land as permanent open space. In a rapidly growing region, conservation development is one approach that balances the need for additional housing with the need for preserving meaningful amounts of open space.

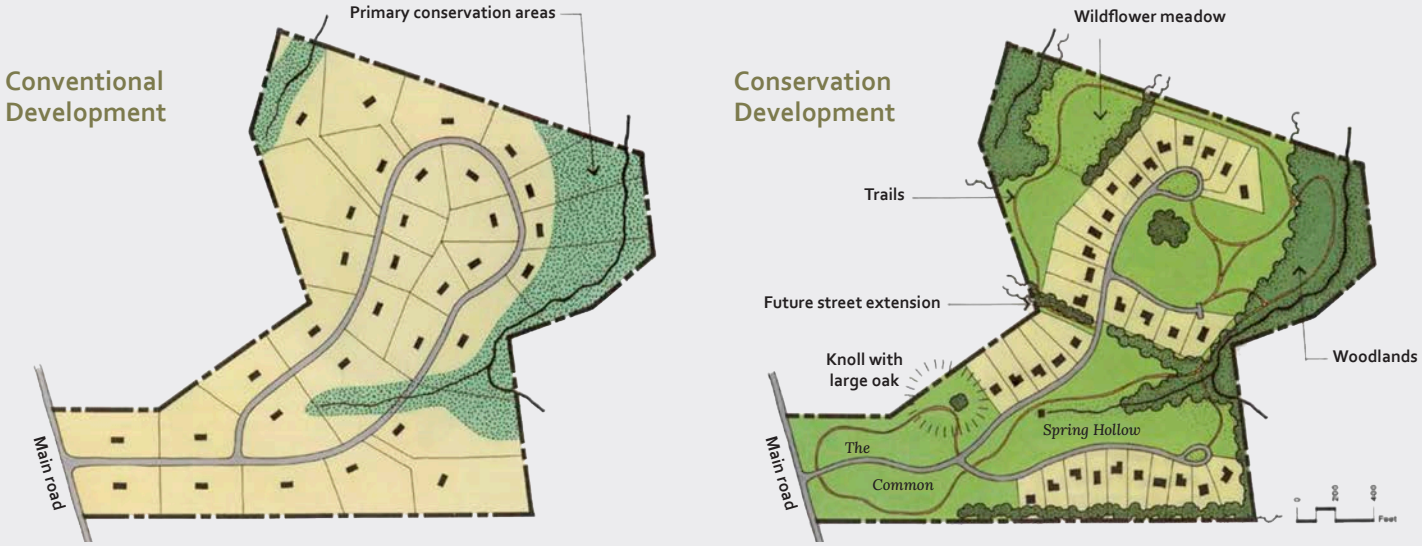
While conventional lot-by-lot subdivision patterns often result in fragmented open space, conservation development at its best provides a connected network of amenity-rich open space (think walking trails, picnic areas, or recreational green space). Conservation development also typically results in more efficient use of infrastructure since clustering homes together reduces the number of roads and pavement needed to serve development.

It is worth noting that open space also directly benefits the community. One of the most important benefits of open space, especially in a residential context, is its social value by providing neighbors with opportunities for frequent social interaction and engagement. Open space also helps protect community character by preserving the natural features that shape local identity such as woodlands, pastures, and wetlands.

Conservation development may look different based on whether it is situated in an urban, suburban, or rural context. For example, conservation development in rural areas may have higher requirements for open space preservation (e.g., mandating open space preservation of 50-60% of the buildable area). On the other hand, conservation development in more suburban or urban contexts may have slightly lower requirements for open space and allow for a diversity of housing types.

Many counties and cities across the Upstate are working to update standards for conservation subdivisions and open space residential development. Throughout this process, Upstate Forever has been engaged in advocacy efforts to ensure regulations preserve ample community open space while still remaining a viable option for developers. Since conservation development is rarely mandated, it is important to find the right threshold that achieves open space goals and ensures developer uptake.

Interested in learning more about important community planning and policy processes? Join our Land Planning & Policy email lists at **upstateforever.org/email.**

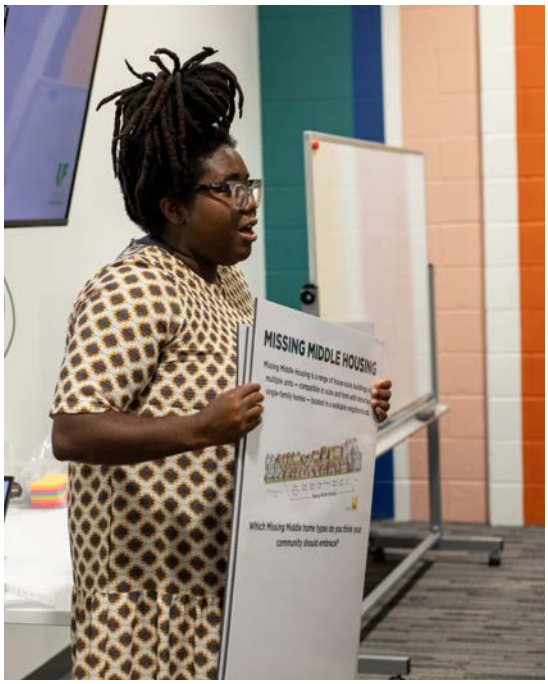


An example of a conventional subdivision layout compared to a conservation subdivision layout. *Source: Coconino, AZ County Subdivision Ordinance*

EVENTS

Inside the Process Advocacy Mixer

UF's Land Planning & Policy and State Policy programs recently hosted "Inside the Process: Local Planning & State Advocacy Mixer." Over 50 guests enjoyed lively discussions and gained key insights on local community outreach, missing middle housing, conservation subdivisions, and the status of data center policy statewide. *Don't miss our next advocacy event — sign up for our e-lists for timely updates:* ***upstateforever.org/email***



Photos by Elizabeth Swails

At this year's ForeverGreen Annual Awards Luncheon, we were proud to have the opportunity to recognize several individuals who have dedicated decades of their lives to land and water protection, balanced growth, and environmental education in Upstate South Carolina. Many thanks to the sponsors, vendors, staff, board members, and guests who helped make this one of our best awards luncheons yet.

2026 Award Recipients

TOMMY WYCHE LAND CONSERVATION CHAMPIONS

Margaret and Bryant Harrison, for their leadership in farmland conservation, community service, and advancing equity for farmers in Greenville County and beyond

CLEAN WATER CHAMPION

Bryan Stoddard, for his decades of service and steadfast commitment to clean water and land protection in the Savannah River Basin

MARJORIE E. SCHMIDT STEWARDSHIP AWARD

Tim Taylor, for decades of inspiring environmental education through leadership, mentorship, and a lifelong passion for connecting people with the natural world

LAND PLANNING & POLICY CHAMPION

Martial Robichaud, for his dedicated advocacy for balanced growth, rural representation, and environmental stewardship in Spartanburg County

2026 ForeverGreen Awards Luncheon Sponsors

Emerald Sponsors

Milliken

MAST GENERAL STORE SINCE 1883

Forest Sponsor

TROUT UNLIMITED MOUNTAIN BRIDGE

Spruce Sponsors

COMMUNITY FOUNDATION OF GREENVILLE Bridging Philanthropy & Purpose

GREENVILLE JOURNAL

HAYNSWORTH SINKLER BOYD

WYCHE

GreenvilleWater

The Gallivan Group Private Wealth Management

UBS

MARLENE WALKER & FAMILY

Spartanburg Regional Healthcare System

SAUNA HOUSE GREENVILLE

Cedar Sponsors

CVSC Conservation Voters of South Carolina

CAPTRUST

EarthDesign

Friends of the Reedy River

PTG

LCWSC Trust in Every Drop

MILO'S

Naturaland TRUST

The SHI Institute for Sustainable Communities Furman

scansource

Photos by Megan Burton and Elizabeth Swails

Learn more about this year's ForeverGreen Award recipients at ***upstateforever.org*** *and watch the awardee videos at our YouTube channel* ***UpstateForever.***

EVENTS

Celebrating conservation partnerships in South Carolina

Upstate Forever was honored to host members of the South Carolina Conservation Bank board and staff, conservation partners, landowners, and supporters in Greenville as part of the Board's June meeting. The South Carolina Conservation Bank (SCCB) plays a critical role in the protection of lands, waterways, and natural resources that make our state special. Its work — and the work of fellow conservation organizations, landowners, agencies, and supporters across South Carolina — is helping ensure that farms, forests, wildlife habitat, and scenic landscapes remain part of our state's future.

This gathering was an opportunity to celebrate the remarkable momentum for conservation in SC and recognize the partnerships that make this work possible — as well as the impact of outgoing Director Raleigh West. We are grateful to the SCCB and our many partners for their leadership and collaboration in conserving the natural places that make South Carolina special. *To learn more about the SCCB, visit* ***sccbank.sc.gov***

Photos by Megan Burton

NEWS

Recent land conservation

UF's nationally accredited land trust has worked with landowners and partner organizations to permanently protect more than 800 acres in Laurens and Union Counties. These recently protected properties include generational farms, wildlife habitat, and sensitive riparian corridors.

Thomason Farm | *Laurens County, 219 acres*

For more than a century, the Thomason family has called their 219-acre farm in Laurens County home, with four generations caring for the land since 1917. Today, Robin Thomason continues that tradition, raising cattle and cutting hay across a landscape of fields, forests and native grasslands. A spring-fed pond and streams provide clean water and habitat for wildlife, while the farm's open fields and rural views help preserve the agricultural character of this rapidly developing area. Permanently protecting Thomason Farm will ensure this family legacy — and an important piece of Laurens County's rural landscape — remains intact for generations to come.

Project funders include the South Carolina Conservation Bank (SCCB) and the Upstate Land Conservation Fund (ULCF).

Thomason Farm

Santuc Farm

"Working farms and forests make significant, positive contributions to South Carolina's distinct rural character. We're honored to have provided grants to support the permanent protection of these special places."

— **DR. PETER KING,** Chair of the SC Conservation Bank Board

Santuc Farm

Union County, 387 acres

For nearly a century, Santuc Farm has been part of the same family's story, beginning as a dairy farm in the 1920s before transitioning to beef cattle. Today, the landowners continue that tradition, managing a working landscape of rolling pastures and forests while preserving the farm's character, including a historic farmhouse and the old dairy parlor. The property's streams and wooded areas provide important habitat and help protect water quality in the Tyger River watershed, while its open fields preserve scenic views along the surrounding country roads. Permanently protecting Santuc Farm will help keep this productive family farm intact and preserve a piece of Union County's rural heritage for generations to come. *Project funders include the SCCB and ULCF.*

Oak Grove Farm Mitigation Bank

Union County, 233 acres

This Union County property protects an important riparian landscape in the Tyger River Basin about four miles south of the City of Union. Long managed for agriculture and forestry, Oak Grove Farm Mitigation Bank includes wooded stream corridors, wetlands, and old farm fields that provide habitat for wildlife and help protect local waterways. This mitigation project will restore nearly 14,000 feet of streams, preserve forested wetlands, and enhance additional freshwater wetlands, helping restore natural functions to areas historically altered by farming and timber management. Together, these efforts will strengthen water quality and wildlife habitat while conserving an important piece of Union County's rural landscape.

A conservation easement is a voluntary contract between a landowner and a qualified land trust like Upstate Forever. It allows the landowner to legally restrict certain undesirable land uses from occurring on their property. This agreement is permanent and remains with the land even after it has been sold or willed to heirs. For more information about partnering with UF to place a conservation easement on your property, contact ***landtrust@upstateforever.org.***

NEWS

UF awarded $900k grant for Clean Water work

Upstate Forever's Clean Water program has been awarded a grant from The Emerging Contaminants in Small or Disadvantaged Communities (EC-SDC) Grant Program within the South Carolina Department of Environmental Services (SCDES).

The grant, which totals more than $900,000, is formally titled "Protecting Drinking Water: Addressing Emerging Contaminants in the Upper Savannah River Basin." It will address the impacts of emerging contaminants — E. coli and cyanotoxins — on drinking water sources in small and disadvantaged communities within the Upper Savannah River Basin.

In collaboration with local stakeholders, including drinking water utilities, UF will implement a comprehensive strategy that combines water sampling with mapping analyses to fill data gaps and identify contamination sources. UF will also partner with agricultural landowners to install best management practices aimed at reducing emerging contaminants in local source waters.

The UF team is very grateful to SCDES for providing us with this incredible opportunity to partner with local drinking water utilities in Anderson and Oconee counties to address the impacts of emerging contaminants — including harmful algal blooms — on the source waters they rely upon to serve their communities.

Stay tuned to learn more as UF works to implement this grant. To get updates on our Clean Water work, sign up for the Water Log e-newsletter at **upstateforever.org/email.**

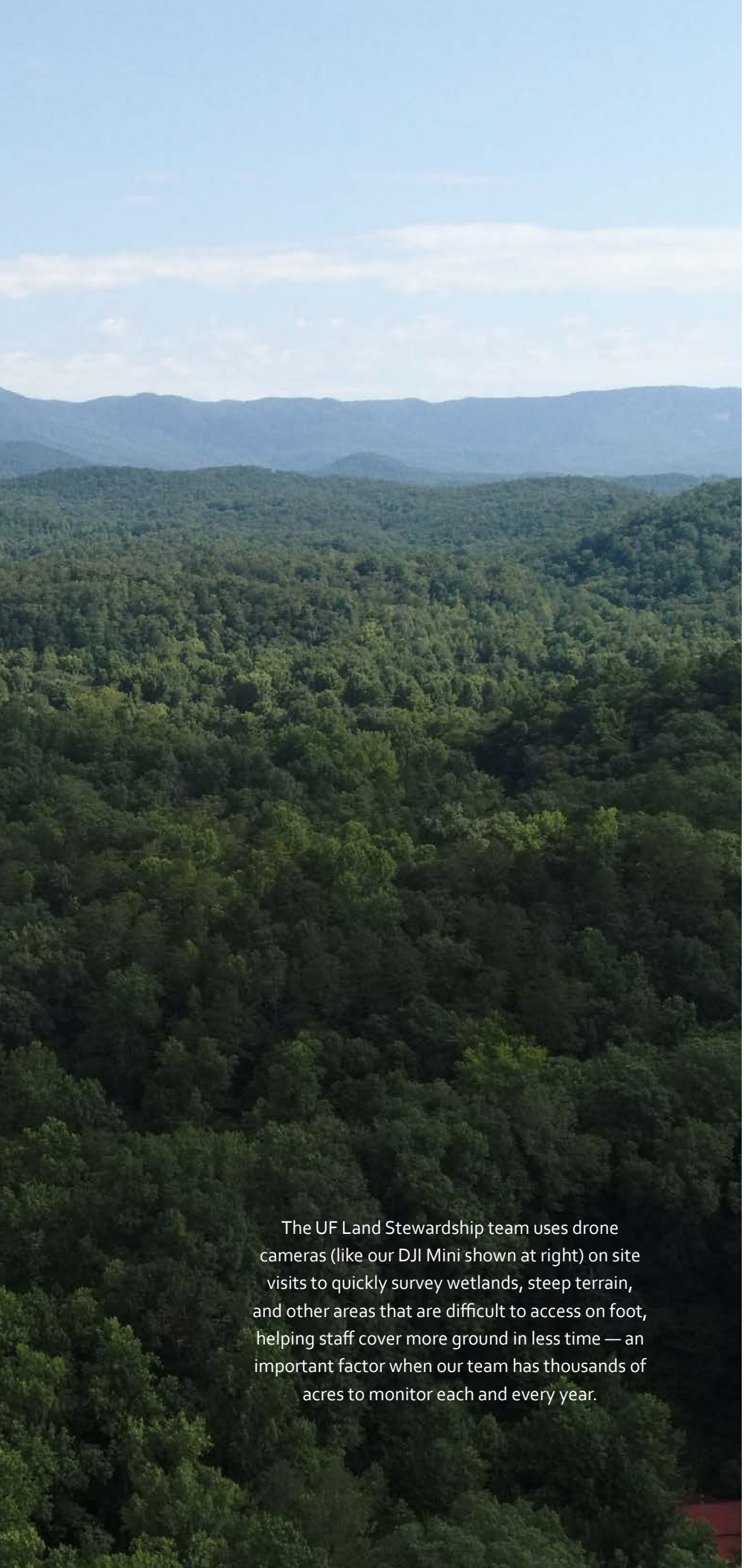
This project has been funded wholly or in part by the United States Environmental Protection Agency under assistance agreement 04D00424 to the South Carolina Department of Environmental Services. The contents of this document do not necessarily reflect the views and policies of the Environmental Protection Agency, nor does the Environmental Protection Agency endorse trade names or recommend the use of commercial products mentioned in this document, as well as any images, video, text, or other content created by generative artificial intelligence tools, nor does any such content necessarily reflect the views and policies of the Environmental Protection Agency.

STAFF

Welcome, Josie!

Josie Newton recently joined Upstate Forever as Clean Water Manager. A South Carolina native, she earned a B.S. in Sustainability Science from Furman University and brings experience in sustainable agriculture, wetlands delineation and permitting, and watershed science. She serves on the Saluda River Basin Planning Council, is a Clemson Extension Certified Master Rain Gardener, and spent nearly five years as a volunteer trainer for the South Carolina Adopt-a-Stream program. In her free time, Josie enjoys spending time outdoors with her friends and family, seeing live music, gardening, and pursuing creative hobbies.

Full bio at ***upstateforever.org/team***



The UF Land Stewardship team uses drone cameras (like our DJI Mini shown at right) on site visits to quickly survey wetlands, steep terrain, and other areas that are difficult to access on foot, helping staff cover more ground in less time — an important factor when our team has thousands of acres to monitor each and every year.

Tools of the Trade

How the UF team uses technology to protect our region's special places

Conservation is hands-on work. But behind much of that hands-on work is a growing suite of technology that helps our team see more, understand more, and protect more.

From managing the complex details of conservation easement projects to capturing aerial imagery and analyzing watershed data, these tools help Upstate Forever staff make informed decisions and maximize our impact. Here's a look at some of the technology our team uses every day to protect the Upstate's special places.

Continued >>

Landscape: One platform, every property

Each conservation easement begins with a landowner's decision to permanently protect their land and water for future generations. That generous commitment sets in motion a complex process — every project involves countless conversations, documents, deadlines, maps, site visits, and long-term commitments that continue after a property is protected. Keeping all of that organized requires more than spreadsheets, binders, and filing cabinets.

Designed specifically for land trusts by former land trust employees, Landscape is a web- and mobile-based platform that helps UF manage every stage of a conservation project, from a landowner's first inquiry through years of stewardship after a property is protected.

At any given time, each member of UF's Land Conservation team may be juggling a dozen or more potential conservation easements. Landscape helps ensure those projects continue moving forward by organizing tasks, deadlines, and workflows in one place.

"Landscape plays a critical role in keeping track of multiple projects," says Scott Park, UF's Glenn Hilliard Director of Land Conservation. "It helps us know which projects are in what stage of protection and what our next steps are."

Before adopting Landscape in 2021, conservation easement project information lived in a patchwork system of Excel spreadsheets, Microsoft Access databases, and separate reporting systems.

"It felt like we were working in the Stone Age," Scott says, laughing. "Now, we simply couldn't manage the number or complexity of conservation projects we take on without it. It's helped us increase both our capacity and the quality of our conservation work."

For UF's Stewardship team, the Landscape platform serves as more than a project tracker — it creates a living record of every protected property.

"Everything we do is in Landscape," says Lauren Ulich, Director of Stewardship & Land Management, of her team's work.

Information that was once scattered across emails, paper files, spreadsheets, and servers now exists together in a single system. Landowner contact information, property access instructions, annual monitoring reports, site photographs, maps, land management activities, rights requests, property transfers, and ongoing communications all become part of a property's documented history right within Landscape.

This software also streamlines one of our Stewardship team's most important responsibilities: annual monitoring. Staff schedule site visits, assign properties to specific team members, track progress through dashboards, upload geo-referenced photos directly from the field, and generate reports, all within the same platform.

Landscape also simplifies the many reporting requirements that come with land protection. UF regularly reports to the Board of Directors, various committees, insurance providers, and the national Land Trust Alliance.

"Instead of having to dig through files on a server to find all this information for a report, we're able to create a spreadsheet at the click of a button that can be quickly reviewed and directly submitted," says Lauren.

The result is more than time saved on reporting. By keeping the details of each project organized and accessible, Landscape gives our team more capacity to focus on what matters most: protecting land, supporting landowners, and caring for the places already in our conservation portfolio.

But managing individual properties is only part of the picture. To make strategic conservation decisions, our team also needs to understand how those properties fit into the larger Upstate landscape — and that's where GIS comes in.

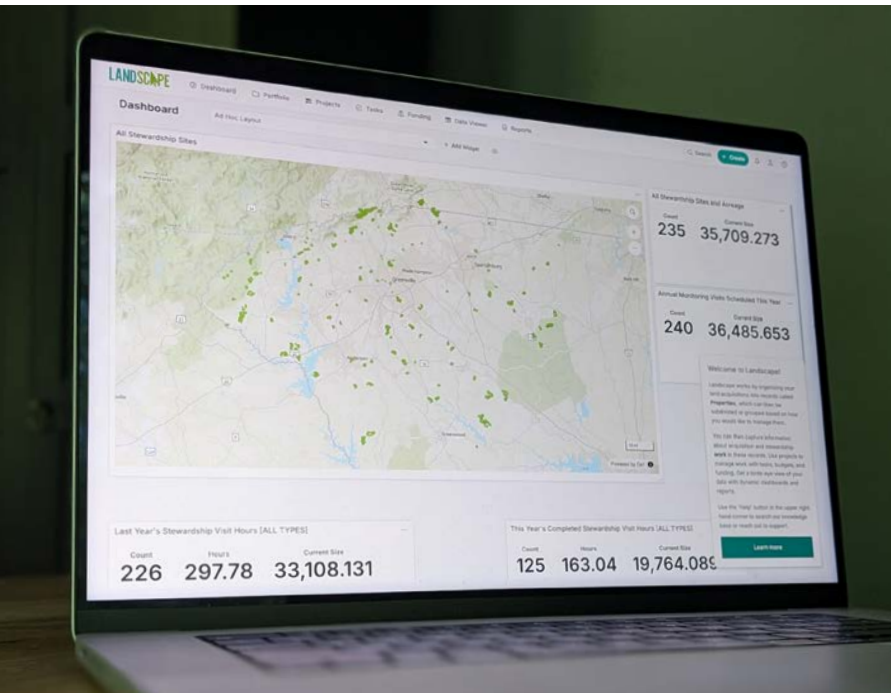
GIS: Mapping a better future

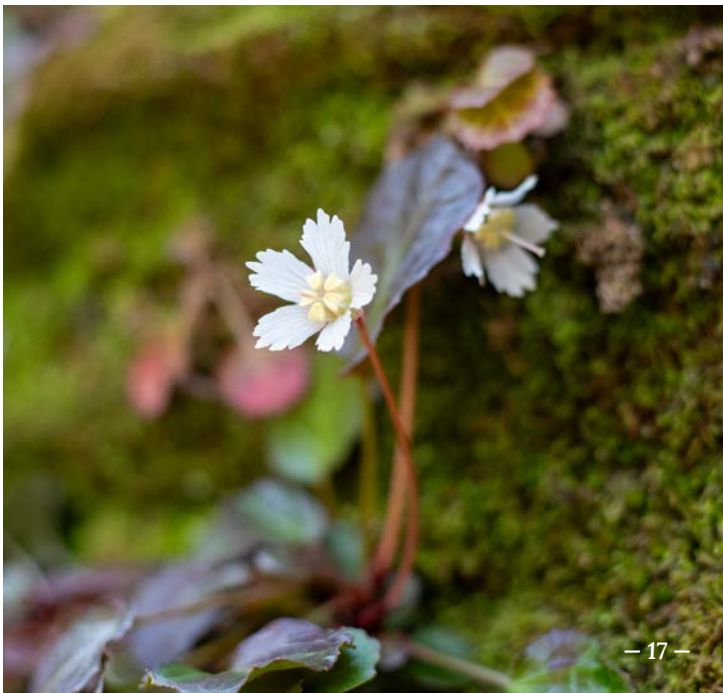
When you think of conservation, you probably picture forests, rivers, farms, and open fields — not staff sitting behind a computer looking at digital maps layered with thousands of data points. But behind every conservation decision is a powerful technology that helps our Land Conservation and Clean Water teams make strategic decisions: Geographic Information Systems, or GIS.

Continued on page 20 >>

Opposite page: The Landscape platform (mobile version at top and desktop version at lower left) can be used to store images of flora and fauna our team finds when they visit conserved properties. Spotting rare species like the Oconee bell is a particular treat!

***Landscape** is a web- and mobile-based platform that helps UF manage every stage of a conservation project, from a landowner's first inquiry through years of stewardship after a property is protected.*

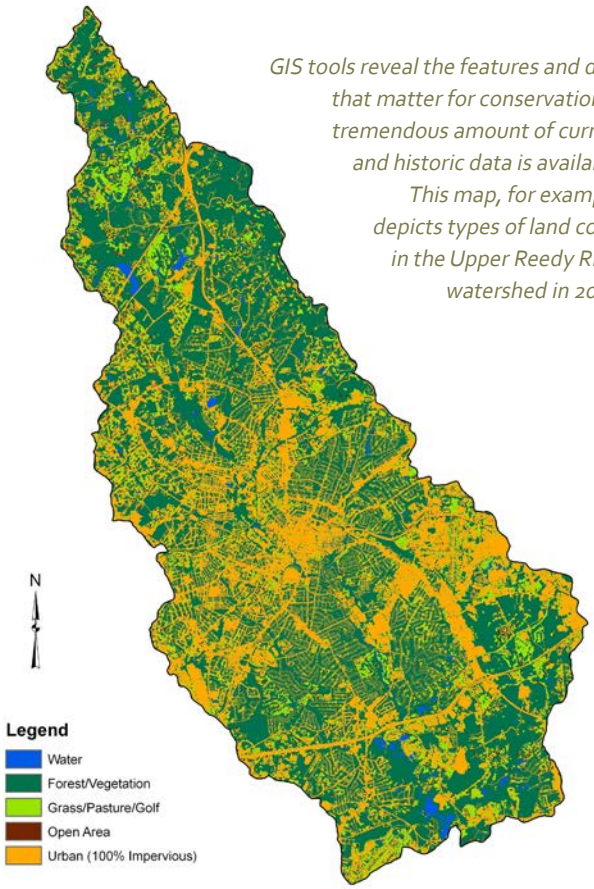




Scott Park (left), UF's Glenn Hilliard Director of Land Conservation, reviews a map created in GIS as part of conversations surrounding a conservation easement. GIS makes it simple to export multiple maps of a property that highlight different features like waterways, structures, terrain, boundaries, and more.

By transforming complex data into clear, actionable maps, ***Geographic Information Systems (GIS)*** *helps our team identify where conservation can have the greatest impact and better understand the natural resources we're working to protect.*

UF's Scott Park (right) shows a map created in GIS to a conservation easement landowner. GIS can generate maps using many geographic data layers, offering different views of a property's conservation value.



GIS tools reveal the features and data that matter for conservation. A tremendous amount of current and historic data is available. This map, for example, depicts types of land cover in the Upper Reedy River watershed in 2006.

(Continued from page 16)

Simply put, GIS allows users to combine many different points of information into one interactive map, helping them visualize, analyze, and prioritize the places and projects that matter most.

"GIS allows us to combine all sorts of data in one image — to be able to compare and contrast different information geographically," explains Scott.

Just as layers in a navigation app can show you the nearest gas station or coffee shop, GIS tools reveal the features that most impact conservation. Instead of restaurants or traffic, our staff are looking at streams, wetlands, floodplains, forests, farmland, wildlife habitat, and dozens of other data layers that illustrate a complete picture of a property's conservation value.

Another particularly valuable resource is UF's Critical Lands Map, developed in partnership with Furman University with support from Pacolet Milliken. The Critical Lands Map combines numerous data layers into a single planning tool that helps our team identify lands with the greatest potential to protect

Assistant Communications Director Megan Burton shows off one of UF's two new DJI Mini drones, which were generously funded by the Community Foundation of Greenville.

drinking water sources and other important natural resources.

"That is a compilation of layers and layers of data that speak to our mission," Scott says. "It helps identify which lands are priority to protect and which lands are influencing water quality the most."

The value of GIS doesn't end once a property is protected. "The Stewardship team's situational awareness of a property is directly correlated to how detailed a map our Land Conservation team is making," adds Lauren.

During annual monitoring site visits, detailed maps help staff quickly identify riparian buffers, sensitive habitats, conservation restrictions, and other features that require ongoing protection and monitoring.

By transforming complex data into clear, actionable maps, GIS gives UF a more complete view of our region's landscape, helping our team identify where conservation can have the greatest impact and better understand the natural resources we're working to protect.

But even the most detailed map can only tell us so much. Sometimes, the best way to understand a property is to see it from a completely different perspective: the sky.

Drones: A new perspective

One of the most valuable conservation tools newly added to our toolbelt fits in the palm of your hand.

Small but powerful drones have become an important part of the Land Conservation team's work, giving staff a bird's-eye view of properties that would otherwise be difficult or even impossible to see.

Whether flying over the steep escarpment, dense forests, or expansive farmland, aerial imagery helps staff better understand a property's landscape while documenting the natural features that make it worthy of protection.

"A single drone flight makes every site visit so much more productive," says Scott. "It allows us to observe areas we

Land Stewardship Specialist Kelsi Bondy maneuvers one of Upstate Forever's drones around the Greenville office yard.

couldn't easily reach ourselves and gives us a much broader perspective of the property."

Upstate Forever has been using a larger drone for several years, but it requires an FAA license to operate. Recently, a Capacity Building Grant from the Community Foundation of Greenville helped Upstate Forever purchase two smaller, easily transportable drones that do not require an FAA license to operate. These additions to our toolbox make it much easier for more UF staff to capture aerial images.

And these images are a valuable resource throughout the conservation process. Drone photos help document a property's condition when a conservation easement is established, creating a visual record that can be referenced for years to come. They also strengthen grant applications by helping funding partners understand the scale and significance of a project.

"Our grantors and project partners love to see drone photos," Scott said. "They give a sense of a property's scope and scale within the

*Aerial imagery from **drones** helps UF staff better understand a property's landscape while documenting the natural features that make it worthy of protection.*

surrounding landscape and help people better envision what we're working to protect."

For the Stewardship team, drones provide another valuable perspective when monitoring conserved properties. They can quickly survey wetlands, steep terrain, and other areas that are difficult to access on foot, helping staff cover more ground in less time — an important factor when our team has thousands of acres to monitor each and every year.

"There are parts of some properties that are simply much easier to see from the air," says Lauren. "The drone lets us understand those areas much more quickly while complementing what we observe with our own eyes during site visits."

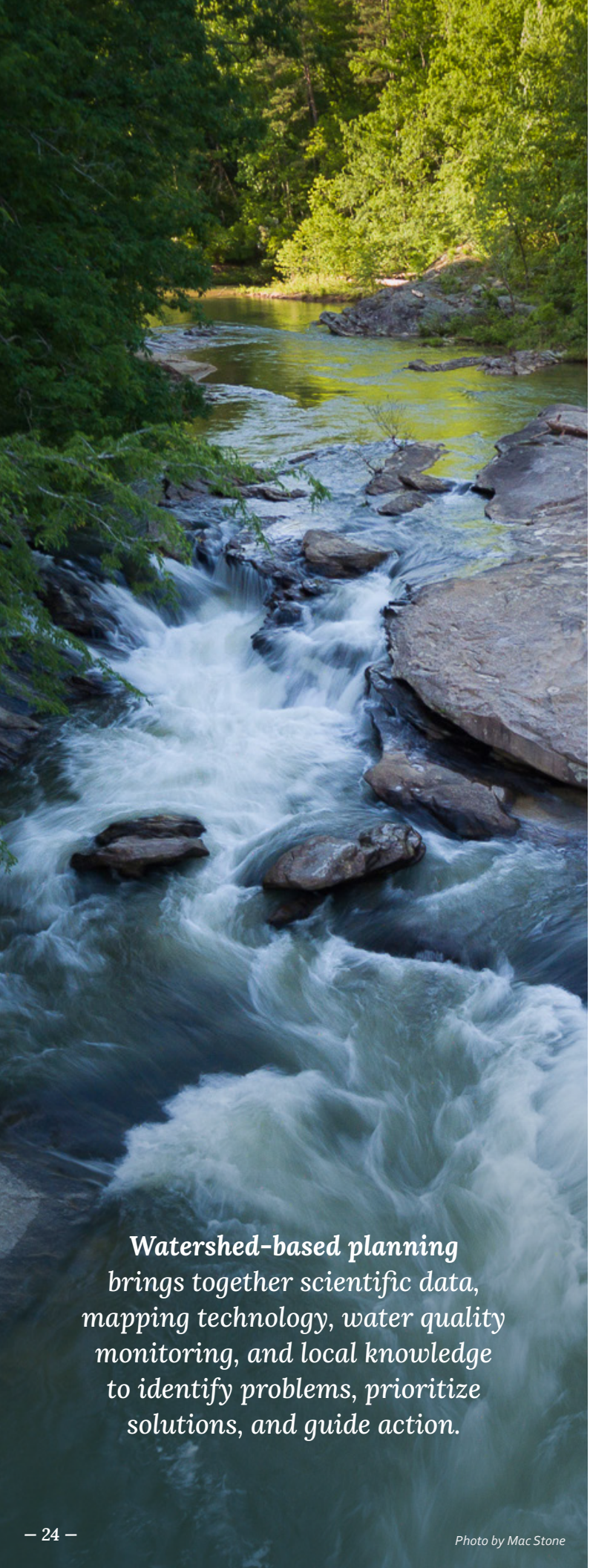
Aerial imagery also becomes part of each property's permanent record. Geo-referenced photos are incorporated into monitoring reports and stored alongside maps, site observations, and other documentation, creating a more complete history of each conserved property.

Like every conservation tool, however, drones have their limitations. A camera can't see through a dense forest canopy, and many stewardship observations still require boots on the ground.

"It's a trade-off," Lauren explains. "The drone helps us see more of a property faster and with less effort, but it doesn't replace being on the ground. It complements the work we do."

While drones may never replace the expertise of our staff or the importance of being on site, they give our team another way to see, document, and understand the places we work to protect — helping us make better use of our time and make more informed decisions.

And sometimes, understanding a conservation challenge requires looking beyond a single property altogether. When the goal is protecting clean water, our team needs to understand how land, streams, communities, and other factors are connected across an entire watershed.



Watershed-based planning *brings together scientific data, mapping technology, water quality monitoring, and local knowledge to identify problems, prioritize solutions, and guide action.*

Photo by Mac Stone

Watershed-Based Planning: Turning data into action

Protecting clean water requires more than knowing where a stream is or identifying a single source of pollution. Watersheds are interconnected systems, and what happens upstream can affect communities, drinking water sources, and waterways downstream.

UF develops watershed-based plans to take a comprehensive look at the factors affecting water quality — and determine where conservation and restoration efforts can make the greatest difference.

"A watershed-based plan is essentially a roadmap for addressing water quality concerns," explains Erika Hollis, Clean Water Director.

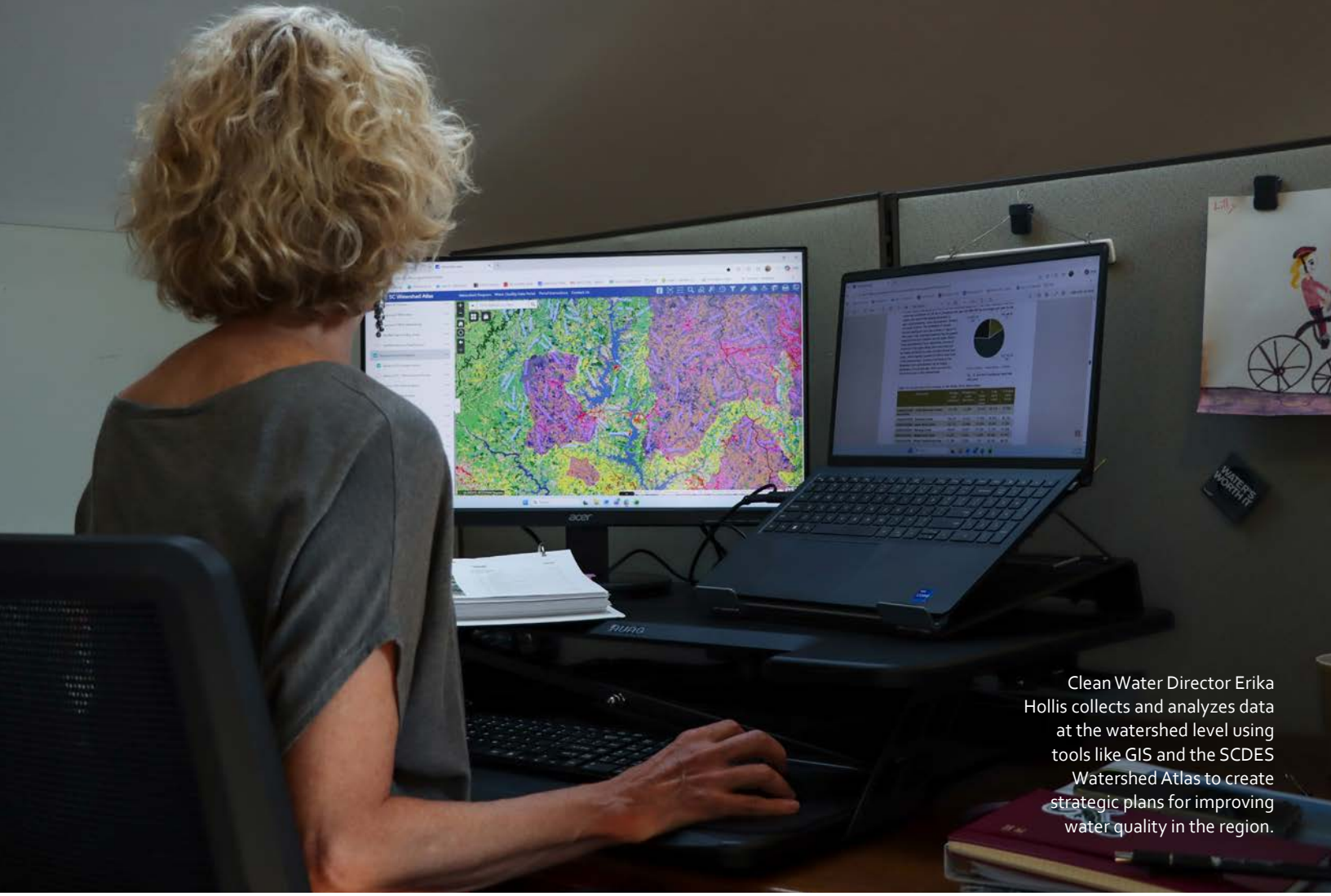
It brings together scientific data, mapping technology, water quality monitoring, and local knowledge to identify problems, prioritize solutions, and guide action. UF's approach goes a step further.

Traditional watershed planning often responds to water quality problems that have already occurred, such as elevated bacteria, nutrients, or sediment. In addition, UF looks proactively at places where protecting land today could help *prevent* future impacts to water quality.

"We know from decades of research that protecting land protects water quality," Erika adds. "We're uniquely positioned and have received national recognition for this approach because we are also an accredited land trust. We can focus on properties in a way that other organizations simply wouldn't have the capacity to do."

Our Clean Water staff start by gathering existing water quality data from local, state, and federal sources. They also use data collected through SC Adopt-a-Stream, a citizen-science program that trains volunteers to monitor waterways monthly using a state-approved protocol. Those monthly observations can help identify potential water quality concerns in areas where formal monitoring may be limited.

From there, GIS and mapping tools help staff see the bigger picture. The team layers information about streams, wetlands, soils, land use, water-quality monitoring sites, permits, drinking water intakes, dams,



Clean Water Director Erika Hollis collects and analyzes data at the watershed level using tools like GIS and the SCDES Watershed Atlas to create strategic plans for improving water quality in the region.

and other features across a watershed. Aerial imagery provides another perspective, helping staff identify potential sources of pollution or other changes on the landscape.

The South Carolina Department of Environmental Services Watershed Atlas is another important tool in this process. This interactive mapping resource allows staff to examine information spatially and identify areas that may warrant closer attention.

Once again, technology doesn't replace boots-on-the-ground knowledge here. Staff conduct field and windshield surveys to see whether concerns identified through data and mapping are actually present on the landscape.

Partnerships with drinking water utilities are critical, as well as the support of the Clemson Extension, local groups, and landowners who know their communities firsthand.

"People who live and work in these watersheds are much more familiar with the issues than we tend to be," Erika says. "They're there every day, so we rely on them for information to help us figure out where to go."

And the work doesn't end when a plan is complete. UF uses available water quality monitoring data to evaluate whether recommended projects are having the desired effect. Because improvements can take time to show up in monitoring data, however, measuring progress is an ongoing — but rewarding — process. We're in it for the long haul!

From Landscape and GIS to drones, water-quality monitoring, and the knowledge of people who live and work in these communities, technology gives our team more ways to understand the places we work to protect. But the tools themselves are only part of the story. What matters is how we use them — combining data, technology, expertise, and local knowledge to make smarter conservation decisions and turn information into action.

Because at the end of the day, the goal isn't simply to create better maps, collect more data, or use newer technology. It's to protect the land and water that make the Upstate a special place, now and for generations to come.

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 total membership and contributions, sponsorships, and planned gifts made through Dec. 31, 2025.

The Founders Society
($1 million & up)

Anonymous

Anonymous, In Memory of Marjorie E. Schmidt

Community Foundation of Greenville

Mary Black Foundation

Diane Smock & Brad Wyche

South Carolina Conservation Bank

South Carolina Department of Environmental Services

V. Kann Rasmussen Foundation

Tommy & Harriet Wyche

The Upstate Champion Society
($500,000 – 999,999)

Balmer Foundation

James & Kathleen Barr

Fujifilm Manufacturing

Glenn & Heather Hilliard

Hamp Sherard

Hollingsworth Funds

Jolley Foundation

Pete & Sally Smith Foundation

Spartanburg County Foundation

The U.S. Environmental Protection Agency

Alice Wald

The 1998 Society
($250,000 – 499,999)

Laura & Mike Baur

Graham Foundation

Hipp Foundation

Naturaland Trust

Phifer Johnson Foundation

Prisma Health System

Renewable Water Resources

South Carolina Department of Natural Resources

Julie & Stephen Ziff

The Stumphouse Society
($100,000 – 249,999)

BlueCross & BlueShield of South Carolina

Duff & Margaret Bruce

Brad Campbell

Charles Stewart Mott Foundation

Conestee Foundation

Andrea & Edwin Cooper

Courtney Shives Memorial Park/ North Main Park

Daniel-Mickel Foundation

Lillian Darby

Energy Foundation

Fielding & Gally Gallivan

Greenville Transit Authority

Greenville Women Giving

Warren Guinn

John & Priscilla Hagins

Doug Harper

Harriet Wyche Memorial Endowment

Robert & Becky Hartness

Clark Jernigan & Celia Thomas

J. M. Smith Foundation

John I. Smith Charities

Anne & Lee Kester

MK & Ross Kester

Sandra & Thomas Kester

Linda Ketelaar

Anna & Dana Leavitt

Nancy & Erwin Maddrey

Genevieve Manly

Mast General Store

Ann L. McCord

Milliken & Company

Oak Hill Fund

The Palmetto Bank

Ellis Pearce

Cindy & Jack Plating

Priester Foundation

ScanSource

Stephanie Schmidt

Bruce Snyder & Barbara Hall

Spartanburg Water System

Mark & Starla Taylor

TD Charitable Foundation

The Community Partners Society
($50,000 – 99,999)

Airey Law Firm

Jim & Karen Akerhielm

Anderson Regional Joint Water System

Laura & John Bauknight

Anna & Nate Bax

John Bissell & Jane Chambers

BMW Manufacturing Company

Dan & Sally Coenen

Judy Cromwell

Dianne Culbertson

Duke Energy Foundation

Katie & Clark Gallivan

Mason Garrett

Genevieve & John Sakas Foundation

Edwin & Peggy Good

Allen & Nikki Grumbine

Marianna & Roger Habisreutinger

Brice & Reid Hipp

Carson & Andrea Johnson

Emelyn & Neil Jones

Bill & Libby Kehl

Gloria Larkin

Paul & Sara Lehner

Life's Rich Pageant Fund

Mary Peace Sterling Foundation

Bobby & Christie Nachman

Brenda & Carlton Owen

Pacolet Milliken Enterprises

Donald & Jane Pilzer

Rita & Robert Rao

Christina & Robert Rogers

Hal & Minor Shaw

Startex Jackson Wellford Duncan Water District

Stringer Foundation

Turner Foundation

The Tyger River Foundation

Weyerhaeuser Company

Faye & Neal Workman

Wyche Law Firm

The Legacy Society
(Those who have included UF in their estate plans)

Barbara & Gilbert Allen

Anonymous

Gregory Bechtel

Lisa & Robert Bezzeg

John Bissell & Jane Chambers

Jane Chastain

Gordon & Kathy Crain

Gary Davis

Bob & Jo Hackl

Ed Hall

Bill & Emily Holt

Maureen Johannigman

Ed Krech

Gloria Larkin

Stacey Lindsay & Terry Schager

Ann McCord

Joyce Murphy

J. Tony Rackley

Rita & Robert Rao

Susanna Schantz & Lee Morrissey

Hamp Sherard

David Shi

Mark Sweeney

Karen Traxler

Priscilla Ann Woodside

Brad Wyche & Diane Smock

Tommy & Harriet Wyche

Mimi Wyche & Davis Enloe

Stephen & Julie Ziff

WHY I GIVE

Dr. David Shi

When I began my teaching career at Davidson College in 1976, I became deeply involved in efforts to make environmental stewardship a visible part of campus life. Working alongside students, faculty, and community members, I helped support initiatives such as recycling programs, community gardens, and food co-ops — early efforts that reflected a growing awareness of our responsibility to care for the natural world.

That commitment took on even greater meaning when I became president of Furman University. There, I had the privilege of working with an energetic and dedicated community of faculty, staff, and students who embraced sustainability not as a peripheral concern, but as a core institutional value. Together, we integrated sustainability into campus operations, academic programs, and student life. As interest and activity continued to grow, we established a sustainability center to coordinate and advance the university's many environmental initiatives, helping to embed a culture of stewardship across the campus.

My work to nurture sustainability at Furman naturally led me to support Upstate Forever, an organization whose commitment to protecting the region's land, water, and communities closely reflects values I have long held. Although I have since retired and moved out of state, my connection to Upstate Forever and its mission remains strong. Through annual contributions and an estate gift, I am honored to help sustain the organization's important work for future generations. The places we cherish today are a trust we hold for those who will follow us, and I can think of no better legacy than helping ensure that they inherit a healthier, more beautiful, and more resilient world."

The places we cherish today are a trust we hold for those who will follow us, and I can think of no better legacy than helping ensure that they inherit ***a healthier, more beautiful, and more resilient world.***

— **DR. DAVID SHI**, former president of Furman University and member of the Upstate Forever Legacy Society

Correction

In the Spring 2026 issue of the *Upstate Advocate*, we inadvertently omitted some names from our list of donors due to a clerical error. We apologize for this oversight and offer our thanks to these donors, who make our work possible through their generosity:

Don & Margaret Adams
Justine & Steve Allen
Richie Andrews
Janis Bandelin & William Fitzpatrick
Richard Barnett
Bob & Amy Buckingham
John Christian
Jeffrey Click
John & Patricia Comerford
Kevin Duckworth
Thomas & Rhonda Felder
Austin Hackert
Emily Hitchcock & Dickey Gowin
Mark & Tricia Johnson
John & Chelle Kelaher
Theresa Kiser
Laura & Chris McGrady
Piney Mountain Design
Kathleen Raschiotto & J. R. Hall
William & Beth Renninger
Chase & Melanie Samples
Christopher Scorsone
John Slipke
Allyson Steffen
Brian Welsch
Kate & Jeb Wofford

While every effort is made to be accurate in our donor lists, we regret that errors and omissions sometimes occur. Please contact Ava Thacker, Gifts Processing & Database Coordinator, at athacker@upstateforever.org with any corrections.

UPSTATE FOREVER

507 Pettigru Street, Greenville, SC 29601
(864) 250-0500 | **upstateforever.org**

Printed on recycled stock with plant-based ink. Please recycle when finished.

SCAN TO GIVE

Your gift supports a bright, beautiful future.

Help us protect the Upstate's special places, now and forever.

Scan the QR code to:

Make a one-time gift

You can donate online or mail a check to our Greenville office.

Set up a recurring donation

Make an impact all year long by setting up a monthly or quarterly gift.

Learn about planned giving

Leave a lasting legacy by including Upstate Forever in your estate plans.