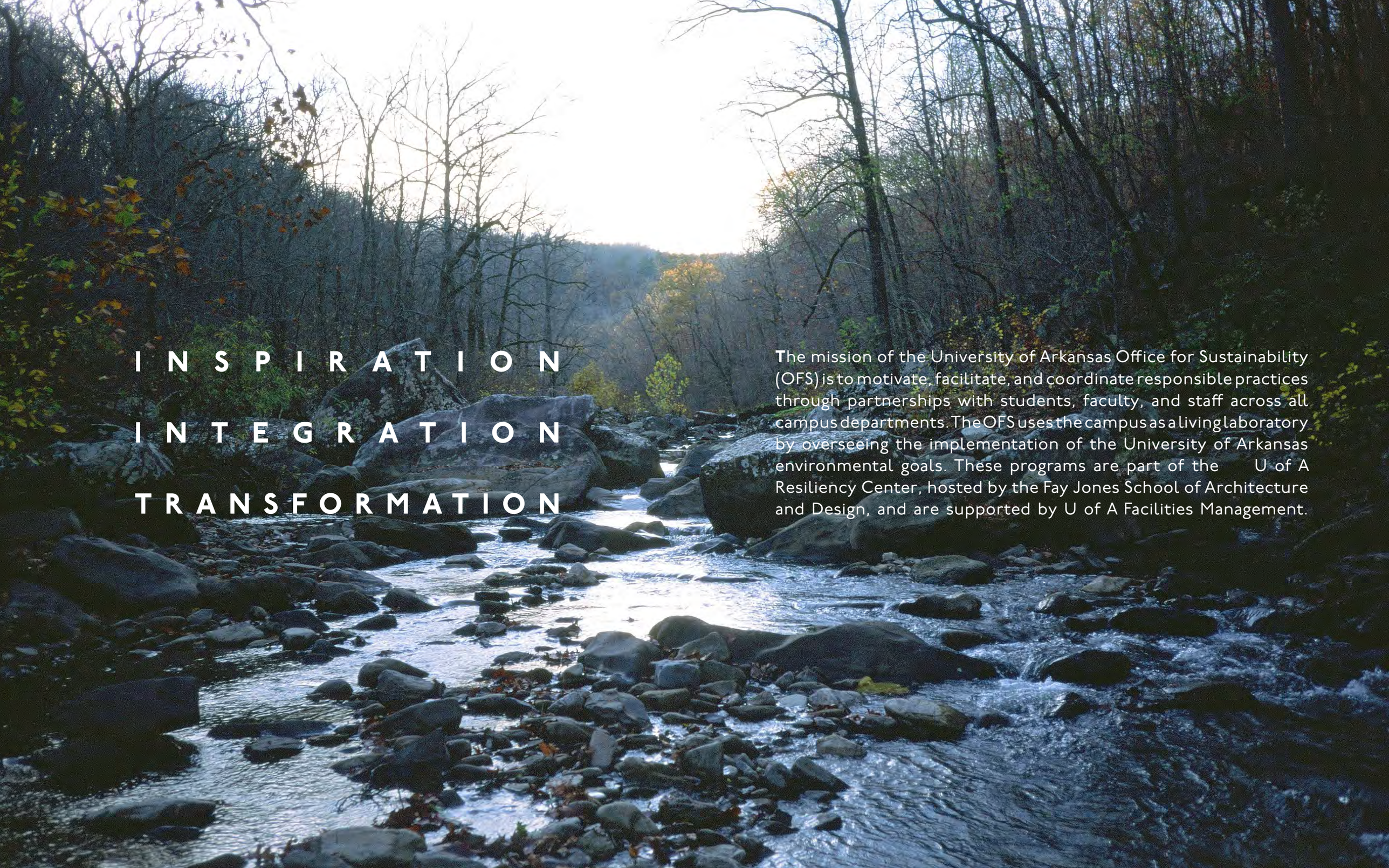
SUSTAINABILITY REPORT 2021

OFFICE FOR SUSTAINABILITY



I N S P I R A T I O N

I N T E G R A T I O N

T R A N S F O R M A T I O N

The mission of the University of Arkansas Office for Sustainability (OFS) is to motivate, facilitate, and coordinate responsible practices through partnerships with students, faculty, and staff across all campus departments. The OFS uses the campus as a living laboratory by overseeing the implementation of the University of Arkansas environmental goals. These programs are part of the U of A Resiliency Center, hosted by the Fay Jones School of Architecture and Design, and are supported by U of A Facilities Management.

RECOGNITION

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ofs
Office for Sustainability

LEADERSHIP

Eric Boles
Director

Eric Boles is Director of the Office for Sustainability and Executive Secretary of the U of A Sustainability Council. Additionally, Eric is a co-founder of Paradigm Sustainability Solutions, which provides companies with science-based sustainability solutions. Eric takes pride in identifying sustainability projects that are economically sound and enhance quality of life.

Marty Matlock
Executive Director

Dr. Marty Matlock is Executive Director of the Resiliency Center and a professor in the Biological and Agricultural Engineering Department. Dr. Matlock's research focuses on developing metrics that inform best management practices, ecological services restoration, ecological risk assessment, and life cycle assessment of supply chain systems.

Ken McCown
Academic Programs Coordinator

Ken McCown serves the Director of the Academic Sustainability programs and as Department Head for landscape architecture in the Fay Jones School where he is also an adjunct professor in architecture. Professor McCown's research focuses upon linking metropolitan resilience and community design, regenerative design, and the Living Building Challenge.

Todd Hansen
Office Manager

Todd Hansen wears many hats and serves as the leading graphic designer for the Office for Sustainability. He has a particularly large role in OFS communications, office management, as well as bicycle infrastructure and advocacy around campus.

Ammen Jordan
Active Transportation Coordinator

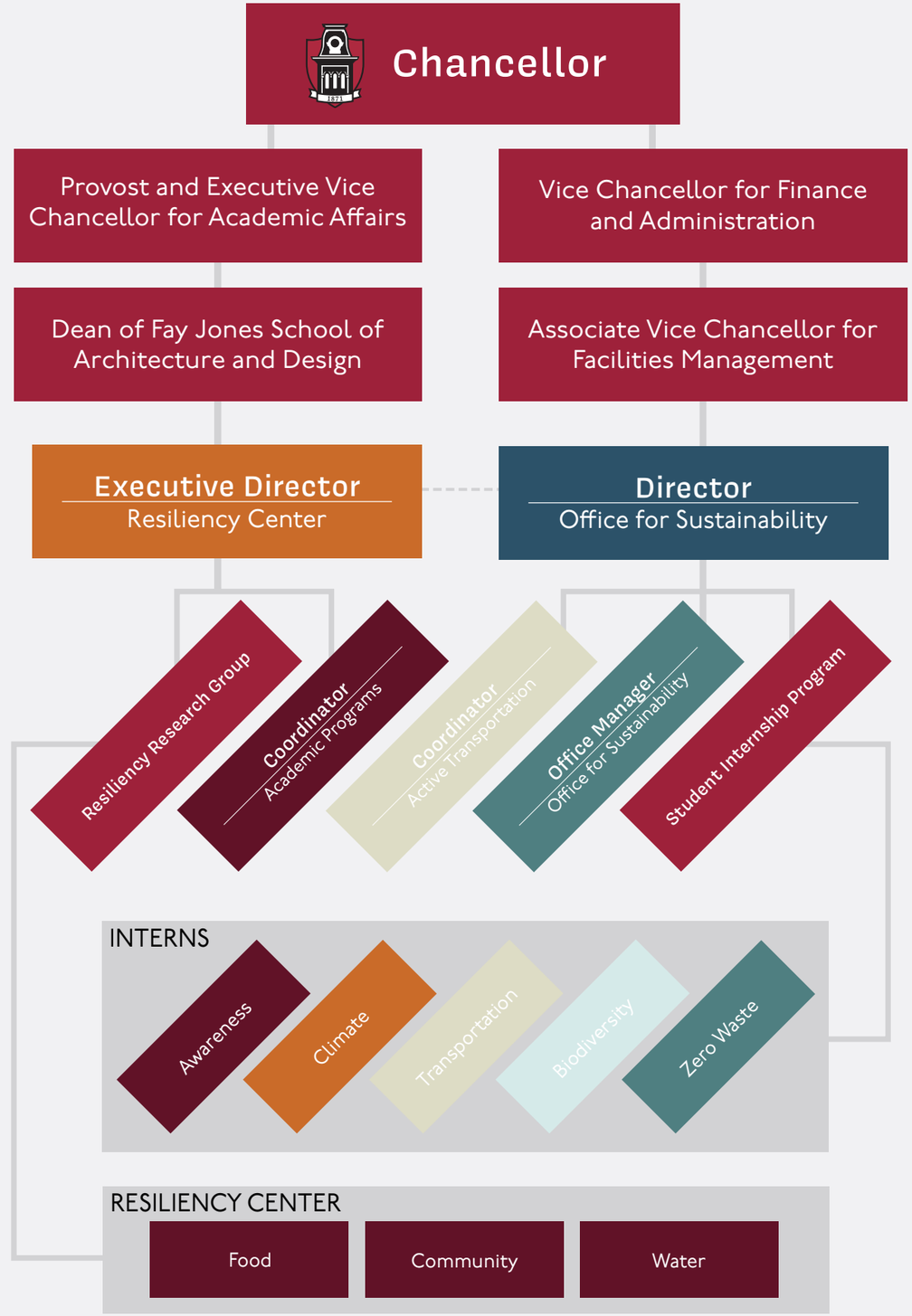
Ammen Jordan is the recently appointed Active Transportation Coordinator for the University of Arkansas. Jordan is focused on providing campus affiliates safe, equitable, and enjoyable opportunities to commute to campus without a car.

STUDENT INTERNS

JULIA NALL
Communications Coordinator

SOPHIE HILL
Zero Waste Coordinator

SYDNEY GOLDING
Biodiversity Coordinator



UNIVERSITY OF ARKANSAS SUSTAINABILITY COUNCIL

The purpose of the University of Arkansas Sustainability Council is to make recommendations to the chancellor and provost and advise the Office for Sustainability (OFS) in implementing its programs and responsibilities. The Sustainability Council supports the OFS stewardship mission through development and coordination of ideas, information and resources among the university's student body, academic departments and administrative units to expand the integration of sustainability into operational practices throughout the University of Arkansas and the community. The Sustainability Council is comprised of students, faculty, staff, and key representatives from the Fayetteville, Arkansas community.

MARTY MATLOCK
Co-Chair
Resiliency Center
Executive Director

SCOTT TURLEY
Co-Chair
Associate Vice
Chancellor Facilities
Management

ERIC BOLES
Executive Secretary
Office for
Sustainability Director

CAMPUS PARTNERS

UNIVERSITY OF ARKANSAS

Facilities Management

Fay Jones School of
Architecture + Design

THE SUSTAINABILITY CONSORTIUM™

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Faculty Senate

STEPHEN RITTERBUSH
Staff Senate

BECKY MCCOY
Office of Business
Affairs

KATY NELSON
University Development

JEFF VINGER
University Housing

CATHERINE SHOULDERS
Dale Bumpers College
of Agriculture, Food
and Life Science

CARL SMITH
Fay Jones School of
Architecture

MARLIS DOUGLAS
J. William Fulbright
College of Arts and
Sciences

JULIE SIMPSON
Alumni Association

KELLY BOSTICK
University Relations

VICKIE FERGUSON
University of Arkansas
Foundation

ANNA KAY HILBURN
Razorback Foundation

SCOTT SARGENT
Department of
intercollegiate Athletics

JON JOHNSON
Sam M. Walton College
of Business

BRANDON WESTON
College of Education
and Health Professions

DARIN NUTTER
College of Engineering

CLAIRE LUCHKINA
Honors College

ANDY GILBRIDE
Transit and Parking

ASHLEY MEEK
Chartwells, U of A
Service Provider

PETER NIERENGARTEN
Fayetteville
Environmental Director

OLIVIA IRVIN
ASG Director of
Sustainability

ANN GALLAHER
Global Campus

VINCE CAPPS
Graduate School

SARA GOSMAN
School of Law

MOLLY BOYD
University of Arkansas
Libraries

CLIMATE

David Stahle conducting research on ancient bayou and oxbow forest remnants. These key ecosystems can be integrated into effective habitat restoration efforts designed to cultivate wildlife and improve water quality in this heavily agricultural sector of Arkansas.

CARBON FOOTPRINT

The University's 2040 carbon-neutral goal is achievable, but only with the continued and active support of students, faculty, and staff. The current total carbon footprint of the U of A is approximately 120,000 metric tons of carbon dioxide. Our footprint per campus user has improved dramatically over a decade, reducing by nearly half, but we still have a ways to go.

GREEN REVOLVING FUND

The GRF provides financing for implementing energy efficient, sustainable, cost-savings projects. These savings replenish the fund and help finance additional projects. Past projects include LED retrofits and battery-powered landscape tools.

CLIMATE ACTION PLAN

The University of Arkansas Climate Action Plan, ratified in 2009 and updated in 2014 and 2018, is a road map to achieve carbon neutrality by 2040. The University's 2040 goal is achievable, but only with the continued and vocal support of students, faculty, and staff.

COMBINED HEAT & POWER SYSTEMS

The campus Combined Heat and Power System (CHP) provides both electrical power and thermal energy (heat) from natural gas. This increases the central plant's efficiency from 40-73%, saves three million dollars per year in electricity, and reduced the entire University's emissions by 20%.

SCOPE 1 EMISSIONS

Scope 1 emissions are directly emitted from the U of A campus, such as on-campus stationary, campus vehicle fleet, and fertilizer used on campus.

KEY STRATEGIES

+ Energy efficient buildings
+ Energy conservation strategies
+ Energy Savings Performance Contracts (ESPC) create opportunities for the two key strategies above.

SCOPE 2 EMISSIONS

Scope 2 emissions come from the generation of electricity purchased by the U of A. These emissions are a result of campus demand for electricity.

KEY STRATEGY

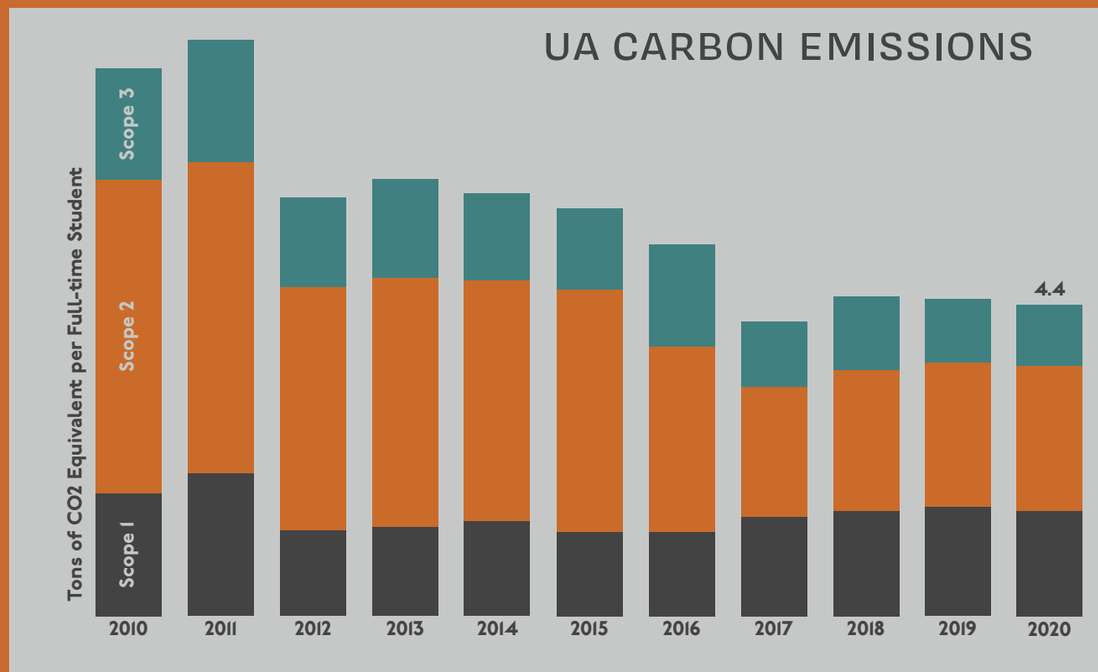
+ Renewable energy power purchase agreements can offset these emissions while saving the U of A millions of dollars

SCOPE 3 EMISSIONS

Scope 3 emissions occur off-site but are induced by the U of A, such as directly financed airplane travel, waste water, and campus affiliate commuting practices.

KEY STRATEGIES

+ Waste reduction programs
+ More alternative transportation
+ Telecommuting



GREEN BUILDINGS

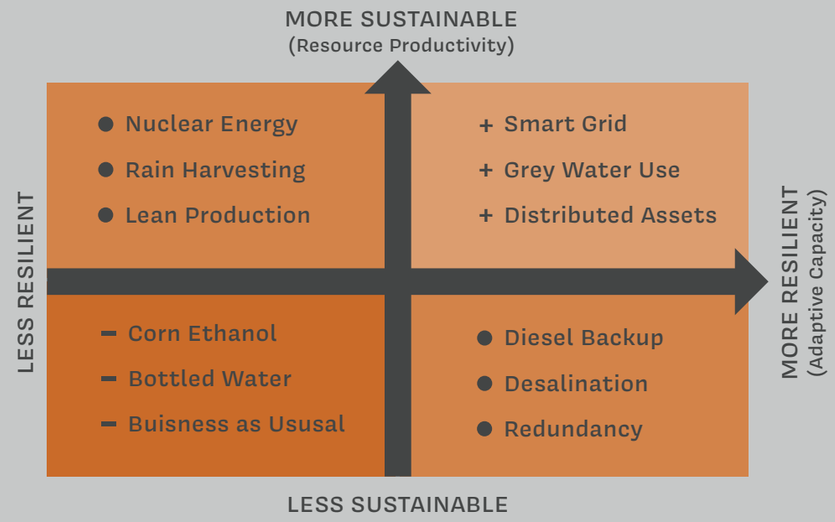
Certified green buildings represent 15% of campus buildings

Campus infrastructure, especially buildings, have a substantial impact on the experience our students have and the environmental footprint of campus. Not only are sustainable buildings more cost efficient over time, they provide spaces that inspire the next generation of leaders.

21% of new buildings constructed have been LEED Certified Gold

Green building is the practice of designing, constructing, and operating the building to maximize occupant health and efficiency while reducing waste and negative environmental impacts. The University of Arkansas is a member of the US Green Building Council (USGBC). Since 2007, the University is committed to meet or exceed LEED (Leaders in Energy and Environmental Design) Silver standards on all new construction and major renovations. The campus has constructed over 1.8 million gross square feet of certified green buildings. This standard is cost effective as the total construction cost of a building is only 20-30% of the lifetime cost of the building. Building more sustainable, and designing with resiliency in mind, often decreases life cycle costs through reduced utilities and building longevity. As campus continues to grow, the buildings accommodating that growth are setting examples for the future generations learning inside them.

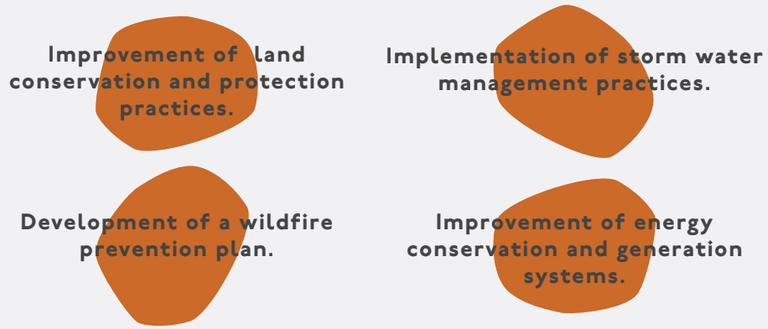
Over the past 10 years, the GHG emissions per square foot of building have decreased by 43%



RESILIENCY ASSESSMENT

There are five domains of climate resilience which must be considered to create a truly resilient community: social, health, natural, physical, and economical. These five domains, while made distinct for the sake of analysis, are interconnected and interdependent.

The City of Fayetteville and the University of Arkansas conducted a series of stakeholder meetings with representatives from the city, university, and community. Each meeting focused on one of the five domains of climate resilience. Attendees were provided various climate strategies and were asked to identify our community's vulnerabilities and strengths. From those meetings, priority topics of climate resilience emerged and all key stakeholders were asked to rank proposed strategies to address climate vulnerabilities in Fayetteville. The highest priority strategies were:



SCOTT TURLEY

Scott Turley is the Associate Vice Chancellor for Facilities at the U of A.

He provides strategic leadership of the planning, design, construction, and maintenance programs for campus and oversees the execution of capital projects.

What's the overlap between your career and environmental sustainability? It is always our objective within Facilities Management to be good stewards of the financial and physical resources provided to us as we work to improve campus for our current and future students. In my position as AVC for Facilities, this means maintaining LEED Silver standards with all new buildings, actively pursuing avenues for energy reduction, and promoting sustainable practices.

What FAMA sustainability initiative excites you the most? One of our ongoing projects is the ESPC Energy Savings Contract, which will reduce our energy consumption by 43,356 MMBtu per year and almost 8,200 MTE of CO2. This ESPC project (our 4th) focuses primarily on changing out lighting throughout all campus buildings from fluorescent to LED. We've been working on this project for a few years now, and it is exciting for us to have a project that will provide tangible results in the form of lower energy costs and less energy waste. It's a great example of how making sustainable choices can have a major impact on our campus.

What further actions would like to see the U of A take on the sustainability front? The University has a great opportunity for innovation when implementing sustainability in design and construction where it makes sense. We were able to see some of that with Adohi Hall and the use of cross-laminated timber, as well as investments we have made in our district utility systems. We are also actively pursuing a solar electric option for at least a part of our energy supply. I think we will continue to look for more creative ways to save energy or move to more sustainable sources for that energy. My expectation is that as we continue to grow, we can implement new technologies and approaches to help promote sustainability across campus.

What's an action that you take in your personal life to reduce your footprint? Personally, my wife and I are active recyclers of all materials we can - both curbside and at the Fayetteville Central Station. We are very energy conscious at home and I think practice good energy use habits.

TRANSPORTATION

University of Arkansas faculty and staff on a group bicycle ride through campus to celebrate capturing 1st place amongst universities in the 2021 National and International Bike Month Challenge.

Maple Street Multi-modal Connectivity Project would reconstruct a six-block, one half mile, section of sub-standard roadway, creating a modern and safe Complete Street. The project provides a last-mile connection between the University of Arkansas Campus and the Northwest Arkansas active transportation network via the Razorback Regional Greenway.

ALTERNATIVE

ACCESSIBILITY

The University of Arkansas strives to meet and exceed ADA standards to make campus accessible to everyone. Accessibility is especially challenging with our hilly landscape, but programs like Para-transit, ADA parking permits, and thoughtful street design create a more inclusive campus.

BICYCLES

Campus is home to bike infrastructure and programs– from our paved bike trails, mountain bike trails, and newly installed bicycle wayfinding. The U of A strives to be the most bike-friendly campus in the region and has taken great strides in doing so, earning Bicycle Friendly University Gold status in 2019.

E-SCOOTERS

E-Scooters help close the “last mile” gap for many people living adjacent to campus and reduce car dependency. A good transportation ecosystem provides a wide range of options. The OFS has deployed e-scooter parking corrals around campus to help make finding and parking scooters more predictable. Please ride and park respectfully.

The U of A Commuter Menu is a personalized door-to-door comparison that aims to help any U of A affiliate compare walking, driving, biking, and transit. That comparison includes their total travel time, daily expense, yearly expense, and calories burned in a simple matrix format. We also map out the fastest and easiest routes to get to campus for the mode deemed “preferred.” Commuter Menus are already available for all major off-campus student housing and apartment complexes and can be found on our website. Starting this year, all U of A employees will have access to a custom Commuter Menu.

TRANSPORTATION

TRANSIT

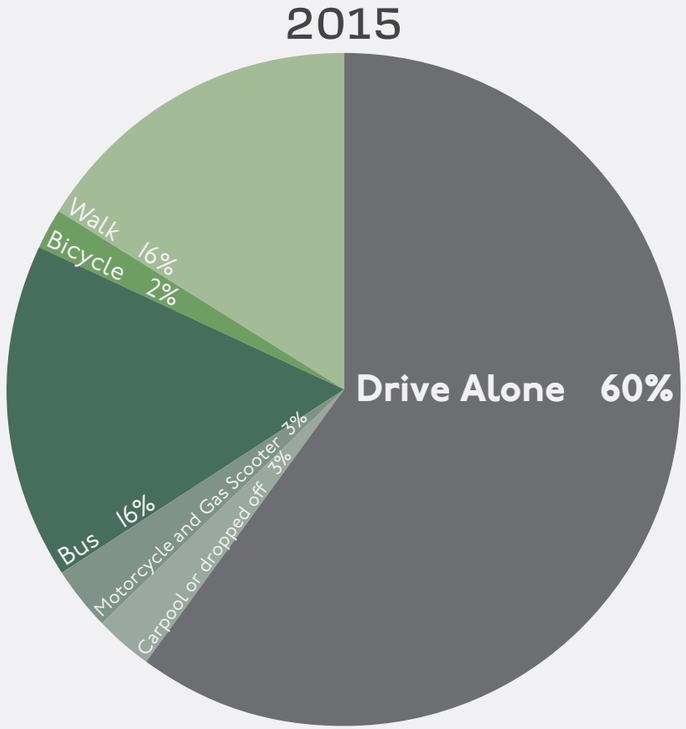
Razorback Transit serves the University of Arkansas campus and much of Fayetteville. With nearly two million rides per year, the transit system runs across Fayetteville and is free for everyone to use, not just students. Bike racks on the buses allow many students to out-smart gravity during their commute.

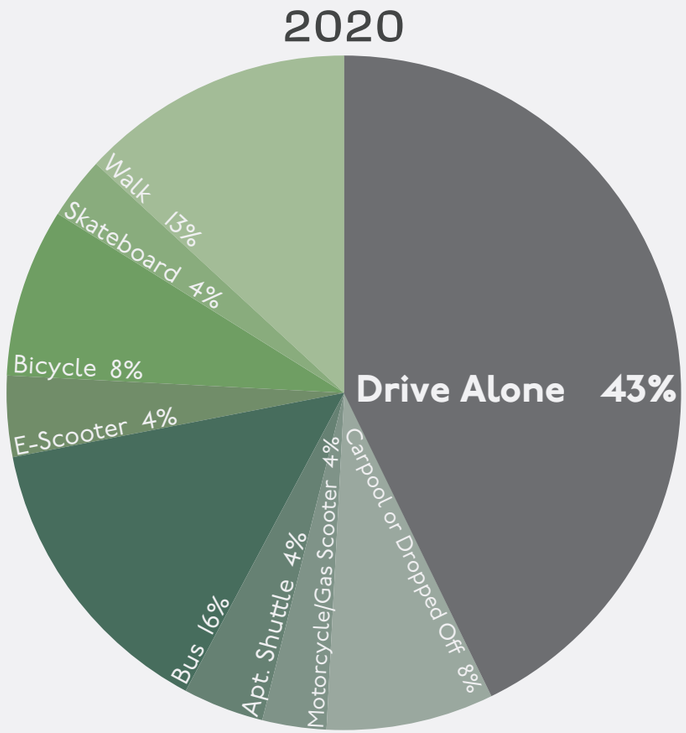
PEDESTRIANS

The U of A campus is the most pedestrian friendly place in the state. Walking is the best way to get exercise, clear your head, and take in the beauty of campus. The U of A even offers discounted remote parking lots that are walkable to campus, and serviced by transit for cold or rainy days.

RIDE SHARE/CARPOOL

Sometimes driving to campus can’t be avoided, but sharing a vehicle with a friend or co-worker will reduce the environmental impact. Carpooling also includes the increasing number of student-focused apartment complexes that provide shuttles for students.





MODE SHARE

The ongoing pandemic has changed our lives dramatically, and for many of us that change comes to our daily routine. We rethink how to get places, if it is necessary to leave the house, and the safest way to get to work and school. For many people their situation requires driving alone, but the mode share trends on the U of A campus for 2020 continued to transition towards alternative transportation. According to the 2020 transportation survey, 49% of U of A affiliates use alternative transportation to get to and from campus. The U of A has helped nurture this trend by working with e-scooter and bike share companies to operate on campus and in the greater Fayetteville area. These shared mobility systems have seen great ridership, especially from students, and 73% of U of A affiliates support more shared mobility systems. Other catalysts include more housing near campus, new bicycle trails, and more apartment shuttles.

49% of campus commutes are made via alternative transportation

73% of U of A affiliates support more shared mobility systems

U of A partnered with the City of Fayetteville to apply for a $6.4 million grant to make Maple Street more equitable

In fall 2021, Pedal It Forward gave 20 U of A International Students a bike and have partnered with them to continue doing bike donations every Semester.

In the Spring of 2022, the University is partnering with Pedal It Forward to host a campus-wide bike drive.

PEDAL IT FORWARD

Provides rural and urban low-income kids, adults and families, at-risk youth, minority and immigrant populations in Northwest Arkansas with free or low cost bikes.

The best way to donate a bike is to drop it off at one of their shops during operating hours. You can always drop it off at any local bike shop and tell them it's for Pedal it Forward.

DEAN MATT WALLER

Matthew Waller, is the Dean of the Sam M. Walton College of Business, Sam M. Walton Leadership Chair, and Professor of Supply Chain Management. Under Waller's leadership, the college created its Department of Strategy, Entrepreneurship and Venture Innovation and established new graduate programs, including in economic analytics.

What's the overlap between your career and environmental sustainability?
Supply Chain Management (SCM) is my academic discipline. This discipline has systems theory at its core. As I grew over the years in my research and understanding of SCM, I realized that significant improvement in SCM means significant improvement in sustainability.

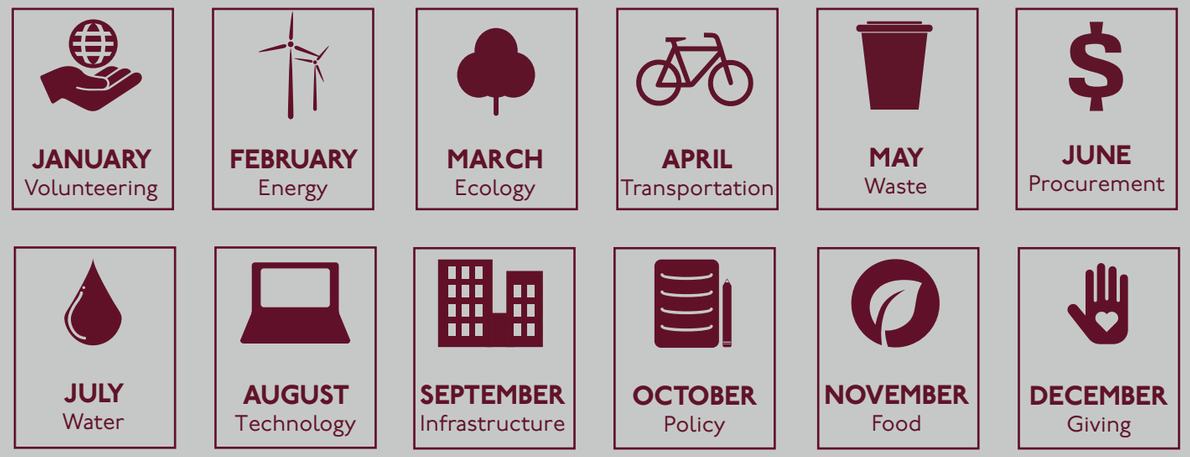
What's an action that you take in your personal life to reduce your footprint?
Of all of the decisions I've made, my decision to adopt a vegan diet had the most impact on my carbon footprint. Vegan means no meat and no dairy, but I eat some fish each week. This probably reduced my carbon footprint by 50%.

Why is active transportation important for students?
Students need more activity. Many times our students are sedentary for hours due to studying and going to classes. If we get our community to move more, eat more of a plant based diet and sleep more, our community will be healthier.

What further actions would like to see the U of A take on the sustainability front?
I would like to the faculty, staff and students more engaged in active transportation and I would like the University to make it easier for faculty, staff and students to have more plant based diets.

ACADEMICS + OUTREACH

Dr Ben Runkle's team in the Arkansas Delta researching how to reduce the carbon footprint of rice.



MONTHLY CAMPAIGNS + OUTREACH

Monthly newsletter that reaches 1,800 U of A affiliates

Over 200 volunteer hours in 2021 by students and affiliates

Hybrid events, like the sustainability passport, to keep students engaged remotely

Every month, there is a theme dedicated to one element of sustainability so that we can raise awareness about that topic. These themes are expressed through our social media, planned events, and newsletter services. The OFS newsletters reach approximately 1,800 U of A affiliates.

The Office for Sustainability hosts a variety of events to educate and connect with our campus and surrounding community. Our events focus on education, professional development, and networking to encourage an informed and connected Fayetteville. Some events the OFS has hosted over the past year include: The Sustainability Passport which was a curated list of activities that all have a focus on enhancing our community and environment in which students can participate in by completing any of the activities listed on the passport. Bike Safety Block Party in which we taught students the ins and outs of bike and scooter safety, as well as gave away 20 bicycles to international students. We also hosted many outdoor volunteer opportunities at the Maple Hill Community Garden and the Oak Ridge Forest Garden, totaling over 200 volunteer hours. Vertically integrated sustainability requires a deep community engagement, and the Office for Sustainability is dedicated to bringing our campus and city together while we work towards a more sustainable future.

SUSTAINABILITY MINOR + GRADUATE CERTIFICATE

SUSTAINABILITY MINOR

The Foundations of Sustainability minor is an 18-credit program open to all undergraduate students at the University of Arkansas. The sustainability minor provides foundational knowledge and skills related to the emerging discipline of sustainability and prepares students to become innovators within diverse fields. The program is organized around built, natural, managed, and social systems of sustainability.

GRADUATE CERTIFICATE

The Graduate Certificate in Sustainability is a 15-credit, interdisciplinary program, drawing from faculty and course work across all colleges of the University of Arkansas. The graduate certificate is accessible to all students admitted to the Graduate School, both degree-seeking and non-degree seeking, to participate in an advanced study in sustainability. The purpose of the Graduate Certificate in Sustainability is to provide functional graduate-level knowledge and skills related to the emerging discipline of sustainability organized around the four interdisciplinary systems areas.

LEARNING OUTCOMES

*Articulate commonly accepted definitions of sustainability as well as engage in analytical thinking to enhance sustainability measures.
*Address real-world problems of sustainability to reinforce and enhance their professional careers.
*Have an understanding of the interdisciplinary nature of sustainability issues, particularly as they pertain to the thematic areas of knowledge.

UA RESILIENCY CENTER

The Mission of the University of Arkansas Resiliency Center is to explore the characteristics of food, water, and community systems that make them resilient (or fragile) and to develop strategies for increasing the resiliency of these critical life-support systems. Communities in Arkansas and around the world are struggling to respond to changes that are happening in the environment, economy, and society – changes that are happening faster than we have ever experienced. In order to continue supporting prosperous communities in both urban and rural areas, decision-makers need better tools and frameworks for understanding and managing the risks and opportunities these changes bring. One important way to manage these risks and opportunities is to foster resiliency in our communities - the ability to continue functioning under changing conditions and to resume functioning after a catastrophic disruption.

A COLLABORATIVE APPROACH

The University of Arkansas Resiliency Center (UARC) is an interdisciplinary research and outreach center hosted by the Fay Jones School of Architecture and Design, in collaboration with the College of Engineering and the Walton College of Business. UARC works closely with communities of scholars across Arkansas and around the world, some partners include:

Fay Jones School of Architecture + Design

College of Engineering

Walton College of Business

Office for Sustainability

Community Design Center

Center for Advanced Spatial Technology

COMMUNITY SYSTEMS
Community systems include the structures, processes, and functions necessary for communities to be resilient in the face of economic, climate, and cultural changes. The resiliency of communities depend on food and water systems, as well as social, cultural, and economic infrastructure. These characteristics are supported (or degraded by) design and management decisions within the community.

WATER SYSTEMS
Water systems are the functions and processes that impact water resources within a community. These impacts include both quantity and quality of water. Climate change is impacting the frequency of floods and droughts. This in turn is impacting the availability of water to support residential, industrial, agricultural, and ecological demands.

FOOD SYSTEMS
Food systems include the entire value chain, from producer to consumer, including post-consumer recycling of nutrients and carbon. Food systems research focuses on metrics, measurements and technologies to improve the sustainability and resiliency food systems.

MARTY MATLOCK

Marty Matlock was the Executive Director of the University of Arkansas Resiliency Center and is a Senior Advisor for Food Systems Resiliency at the USDA.

"Everything is changing, everything is connected, and we are all in this together."

What is the overlap between your career and environmental sustainability? My research focuses on how humans live on the land and impact the land. I explore how we can make better decisions about current and future impacts, how we can remediate past impacts, and how we can create a more resilient and sustainable relationship with the land.

What's an action you take in your personal life to reduce your footprint? We are embracing a carbon neutral lifestyle, where we can. We purchased a Nissan Leaf two years ago to reduce petrochemical energy emissions, we are building an off-the-grid home with full solar and wind power on our farm, hopefully to be completed this year.

Could you explain your new role with the USDA? I am a Senior Advisor for Food Systems Resiliency at USDA. My role is to work across the USDA and partner federal agencies to improve diversity and resiliency of local and regional food production, processing, and distribution. I am focused on meat and poultry systems first.

What further actions would you like to see the U of A take on the sustainability front? The Office for Sustainability working with Facilities Management and across campus with our partners have been very effective at reducing energy waste and increasing energy use efficiency for campus facilities. We have worked with SWEPCO to bring renewable energy (wind and solar) into our energy grid, and to support those alternatives to coal through renewable energy credits. Now the hard work begins. Transportation is a major source of GHG emissions. We need to convert our bus fleet to electric power. We need to expand access to public transit to reduce individual automobile use. We need to encourage electric vehicle use through our parking program pricing and access to charging. These are real changes we can make that will have direct and profitable outcomes for campus. The barriers are simple entropy of decision-making and a lack of commitment to change at campus leadership level.

ZERO WASTE

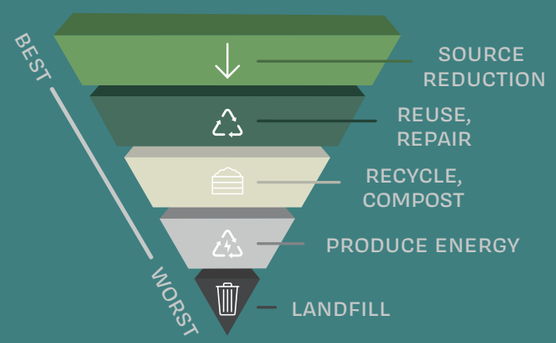
The dedicated Razorback Recycling team ensuring their load of mixed use paper gets a clean sort before being recycled.

ZERO WASTE

The University of Arkansas is committed to diverting over 90% of materials away from landfills by 2040. One way to reach this goal is to raise awareness and participation for our campus recycling programs. Whether you are a student, parent, staff, faculty, or community member, your recycling efforts are an important part of sustainability at the U of A. For those who live off campus or want to recycle additional materials, find out about the City of Fayetteville's Recycle Something campaign. The Office for Sustainability encourages campus departments and student organizations to minimize waste at their events. To support this goal, we have equipment available for free checkout, including: portable cans and bottles recycling receptacles (Clear Streams), and laminated signs.

DIVERSION + AVERSION

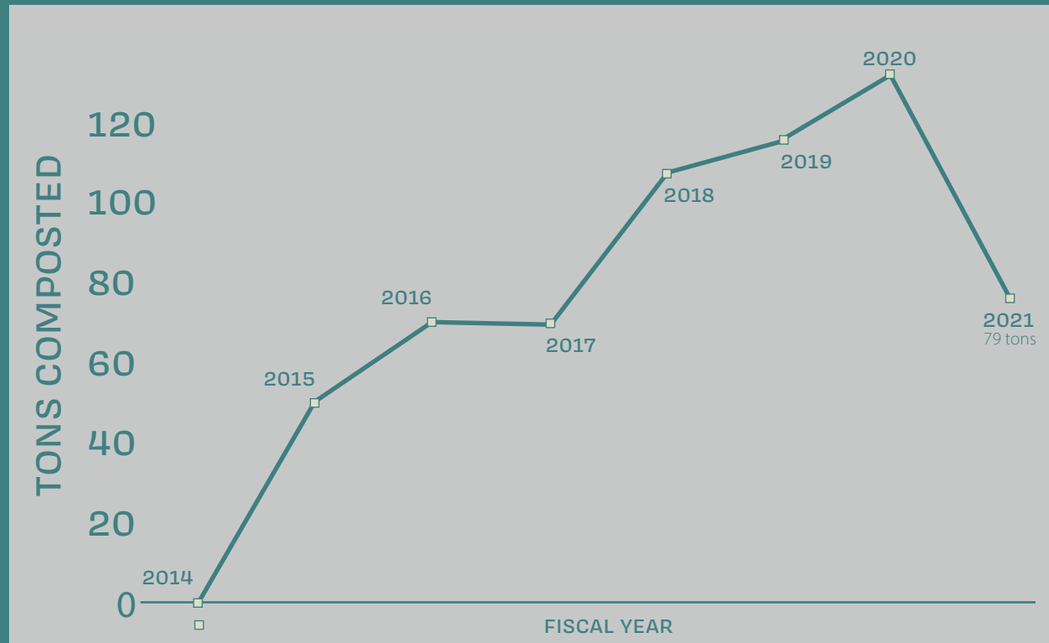
Waste diversion is the re-purposing of goods in some shape or form, while waste aversion is the practice of avoiding wasteful goods entirely. For example, one could divert a plastic bottle by recycling it, or avert it completely by refilling a reusable water bottle. Aversion is where environmental responsibility, cost efficiency, and quality of life converge.



In 2017, Chartwells Dining incorporated a behind-the-scenes pre and post-consumer composting program in partnership with the city of Fayetteville. Since then, they have composted 79 tons.

This program is the continuation of a successful composting pilot program in 2016. The program allows the U of A to not only divert food waste from the landfill, but to reduce greenhouse gases released by decomposing waste.

Additionally, the City of Fayetteville now hosts a composting program for both businesses and local schools. They also have a yard waste composting program for residents of Fayetteville. This year several sororities on campus have opted in to the City's composting program.



UA SURPLUS

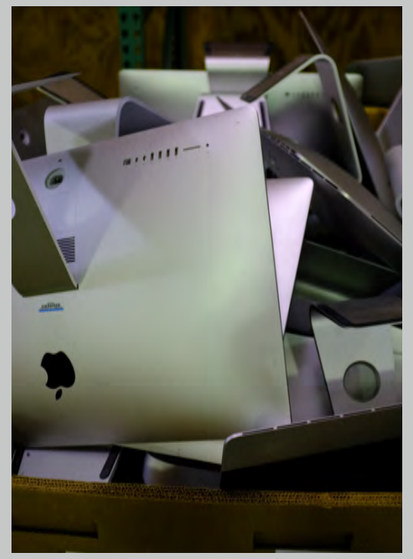
Allows items to have a longer life by reusing items

Saves the University money because we are purchasing less

Ensures that electronic waste is disposed of responsibly

Surplus Property is responsible for disposal of excess or surplus University Property. Departments are welcome to visit the Surplus Warehouse anytime during business hours to look at available surplus property. All University property must be disposed of through surplus.

The UA Surplus Warehouse is a great example of how the University community helps avert waste by reusing as much University property as possible. They run a listserv that offers up items departments around campus are no longer in need of, and make it possible for other departments that might need those items to take them over. This loop in our system allows for less waste as well as saves money because we are purchasing less when we are able to reuse Items. Surplus also takes advantage of another sustainable process called cannibalization. Cannibalization is when one takes salvageable parts from electronic device for use in building or repairing another device: to make use of (a part taken from one thing) in a building or repairing something else to deprive of an essential part or element in creating or sustaining another facility or enterprise.



E-WASTE RECYCLING

The U of A Computer Store handles recycling of batteries, computers, cell phones, and more. Bins that accept these items can be found on the loading dock on the northeast corner of the bookstore. University-owned equipment cannot be dropped off; if you need to dispose of University owned equipment please visit surplus.uark.edu for more information.

On the U of A campus we have free and simple ways to be responsible and make sure empty cartridges don't end up in a landfill regardless of brand. There's three ways to do it, making it easier than ever to do your part.

Driver pickup program: Next time you get a Staples delivery their driver will collect any brand of cartridges for you. Place them in a reused box for bonus points.

Prepaid return mailing label: Mail your cartridges back for free. Simply print your label at StaplesAdvantage.com/recyclinginktoner

Clover Toner Cartridge Recycling Box: Add the SKU (984666) to your next Staples order to receive prepaid shipping boxes for recycling cartridges. Put your empty cartridges in and ship for free.

The U of A Computer Store will also accept your ink and toner cartridges and can be placed in bins that are found at the loading dock on the northeast corner of their store.

LINDSEY WILLIAMS

Lindsey Williams is a preservation specialist at the U of A Libraries.

"Since I work in the library I'd like to offer a reading recommendation: "The Story of Stuff" is about 10 years old now, but it's still one of the most in-depth studies into the modern western perspective of production, consumption, and our challenges surrounding waste remediation and government regulation. There's something for any major in here: finance, business, agriculture, sociology, and poli-sci just to name a few. It really opened my eyes into the chaos surrounding how much of society has neglected to consider its impact over the past century and what we need to do to change course."

What's the overlap between your career and environmental sustainability?
I'm an art historian by trade and a preservation specialist in the Libraries here at the U of A, so I work with material objects daily in an effort to preserve and ensure the accessibility of our cultural texts, art, and ways of seeing for future generations. It doesn't sound like there'd be a lot of overlap inherently, but there is: I often say that our stewardship of materials that hold cultural value shouldn't stop at the limits of our resources, containers, and buildings, but extends to the preservation of our cultures, peoples, and planet as well. How can I say I'm preserving the past while the largest deterioration catalyst that these objects encounter is the same threat as our own? While we often think of sustainability as purely an environmental issue, the ramifications of the climate crisis extend to human, social, and economic problems as well, and I think we need to consider an intersectional way of seeing to be successful in creating a sustainable world.

What got you interested in break room composting? I noticed a convenient avenue that already existed on campus via the composting program with the City of Fayetteville and Chartwells at the Union. Since Mullins Library is only a few feet from the Union, and we have over 100 employees servicing the library daily, I figured it would be a simple enough switch and when people participated, it would create a better waste stream and benefit the community instead of adding to the existing problems we face. That's a key element I think in many sustainable switches to our current way of thinking: find the resources that current exist and utilize them.

What's an action that you take in your personal life to reduce your footprint?
A lot of small steps to be honest: buying less, buying once, and learning how to repair things like clothing has made a difference, but so has washing our clothes in cold water and only when we need to. One of the first things we did was switch all the bulbs in our apartment to LEDs and find the bus routes for me to get to work since we only have one car between us. Choosing to shop locally at small businesses to support our local economy and buying package-free foods like spices, dry goods, and produce from Ozark Natural Foods Co-op has eliminated a lot of potential waste both physically and financially. And we compost at home, but the compost goes to my husband's workplace for their landscaping needs. No matter what your situation, there are always some small steps you can make to create a larger positive impact.

What further actions would you like to see the U of A take on a Sustainability front?
Zero waste and carbon neutrality are great starts and the community momentum around cycling and electric forms of transportation continues to impress. I'd like to see the momentum continue: what if all the smaller service and utility vehicles were carbon neutral or electric? What if most of the campus was a car-free zone to prioritize other forms of transportation for getting around campus and limited the potential for pedestrian accidents near high traffic areas? Steps like these would encourage folks to use the free UARK transit system more, which could also be switched to a carbon neutral option and then expand its availability to areas outside its current reach.

BIODIVERSITY

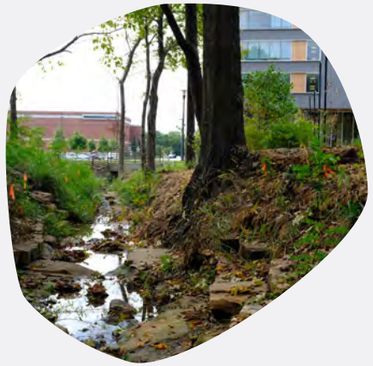
Aromatic asters blooming in front of the Office for Sustainability. In the spring of 2021, OFS Staff planted a quiver of native plants to replace the sterile lawn in front of the office.

The CSRC Remnant Prairie is part of a native plant ecosystem that serves as a wildlife corridor, connecting to other green spaces in town that give animals more space in which to forage, live, and interact with other members of their species.

BIODIVERSITY PROJECTS

BLUE BIRD BOXES

In collaboration with the U of A Office for Sustainability, Dr Sarah DuRant's team in the Department of Biological Sciences, has established a new field site in their ongoing nest box system around Fayetteville. They aim to develop a deeper understanding of how temperature, specifically temperature variation, impacts Eastern Bluebirds and Tree Swallows.



ADOHI BRANCH RESTORATION

The U of A worked with the Watershed Conservation Resource Center to restore 600 feet of the Adohi Branch tributary to Mullin's Creek. The degraded channel was redesigned in the image of a natural stream channel with native stone and plants used to manage erosion and create habitat. The finished product is a great asset for the U of A community.

MAPLE HILL GARDEN

Students have been collaboratively working on reviving the garden at Maple Hill. In 2021, they grew green beans, blueberries, strawberries, cucumbers, watermelons, cantaloupes, asparagus, pumpkins, as well as a mix of native plants and pollinators.

POLLINATOR HABITAT

Adjacent to the Office for Sustainability is a Pollinator Habitat pilot program established in 2018. The pilot plot strives to be a model can be scaled across campus. The ultimate goal of the habitat is to make campus more pollinator-friendly and restore areas to their natural state, but it also happens to be gorgeous when in bloom.

MCILORY HILLSIDE RESTORATION

The ongoing project entails managing an acre of hillside near the McIlroy House along the Oak Ridge bike trail with three species of clover. The goals of this project include beautification, soil restoration, pollinator habitat creation, and erosion control. This will serve as a transition from the invasive species on the hillside.

SEED COLLECTION

This effort to preserve native plant genetics was a partnership with the U of A Herbarium. Throughout October 2021, volunteers collected thousands of big blue stem, meadow beauty, and slender mountain mint seeds, all of which will be used to restore the 10 acre Oak Savanna located adjacent to the prairie.

OAK SAVANNA

Situated in a prominent location south of the University of Arkansas, along Razorback Road, this beautiful grove of post oak trees is one of very few remaining upland prairies and savannas of the western Ozark Mountains. A variety of birds, wildlife and pollinators flourish in the open understory, including hawks, sparrows and even painted buntings. Grasses and flowers that grow in both prairies and forests are found here, including big bluestem, little bluestem, butterfly milkweed, and rough blazing star.

HISTORY

The land is part of an extensive grassland ecosystem consisting of tallgrass prairie and oak savanna that was historically maintained in its open condition by natural and human caused fires. Over time, this landscape that was once very common in Northwest Arkansas largely disappeared due to fire suppression, urban development, and conversion to non-native grasses for hay production.

RESTORATION

Restoration of the tallgrass prairie at this site will provide many benefits to the university and surrounding community. Healthy prairies, no matter their size, are better able to reduce soil and nutrient loss, minimize storm water runoff, sequester carbon, and provide habitat and food for wildlife than fields and pastures of non-native grasses.

EDUCATION & RESEARCH

The University of Arkansas's tallgrass prairie and oak savanna provides many research opportunities to U of A faculty and students. It is currently being used by a master's student conducting research on native plants in horticulture and a Ph.D. student studying birds, and it has the potential to serve as an outdoor classroom and research space for undergraduate and graduate students.

The monarch butterfly lays its eggs exclusively on milkweed leaves, so every monarch pollinator garden includes multiple species of native milkweed such as common, butterfly, and swamp milkweed.

Each waystation contains native nectar plants (flowers) that bloom throughout the season to provide high quality fuel for the butterflies and other invertebrates.

MONARCH WAYSTATIONS

Monarch butterflies migrate from Canada to central Mexico each year. The U of A is installing waystations of host plants and energy sources to assist monarchs with this amazing journey.

Milkweeds and nectar sources are declining due to development and the widespread use of herbicides and pesticides. This program uses existing campus landscapes to provide food and shelter for these amazing creatures.

JENNIFER OGLE

Jennifer Ogle is the herbarium manager at the University of Arkansas. She is co-author of Trees, Shrubs, and Woody Vines of Arkansas, co-editor of the Atlas of the Vascular Plants of Arkansas. Jennifer has been active with the Arkansas Native Plant Society since 2004 and serves on their board, as well as the board for the Fayetteville Natural Heritage Association.

What's the overlap between your career and environmental sustainability? The primary focus of my career is on biodiversity and the conservation of native plants and the habitats in which they occur. Natural, biodiverse habitats are stable, sustainable places that provide countless benefits to humans and other animals. I am also involved with the Arkansas Native Seed Program, a multi-agency and organization effort to collect native seed from local remnant prairies and other grasslands that can then be used for habitat restoration projects in the same region of the state from which they were collected.

What's an action that you take in your personal life to reduce your footprint? I have followed a mostly plant-based diet for over 20 years (I haven't been able to give up real ice cream though, it's just too perfect). I have been working for several years to simply buy less stuff, and to reuse what I can instead of buying new when possible. I try to have the same mindset when I need something for the herbarium. Having a surplus department on campus has been a huge help in that regard. One of my current goals is to buy fewer products packaged in plastic, which has been a much bigger challenge than I thought it would be!

What is the role of the herbarium? The herbarium serves the university community by providing research opportunities for students and faculty as well as a botanical reference collection for classes in many fields of study, including botany, wildlife management, landscape architecture, and horticulture. We also make our plant specimens available for student and professional research worldwide and conduct outreach to the public about the importance of native plants and their conservation.

What further actions would like to see the U of A take on the sustainability front? Non-native invasive plants are a major cause of biodiversity loss. Many of the invasive plants currently causing trouble in natural habitats were originally brought here from other continents as ornamental garden plants. I would like to see the university help fight this problem by adopting a 100% native plants policy for new landscape installations on campus, and to commit to replacing known invasive plants with natives in existing landscapes over time. Once established in a landscape, most native plants need less water than non-natives, and they require no extra inputs of fertilizer to thrive. They also provide the most high-quality food and beneficial habitat to pollinators and other wildlife.

The land our campus sits on goes back beyond written history and includes the legacies of several Indigenous groups. Before Europeans arrived in what is now called Arkansas, the Osage had been using this area for food and hunting, and multiple other groups frequented the Ozarks for resources. The Cherokee have a history here as well, as many Cherokee used the land before the Trail of Tears forced the Cherokee to move through the Ozarks and into Oklahoma. As Indigenous people protect 80% of the world's biodiversity while comprising 5% of the global population, sustainability efforts must always consider the stewardship and legacy of Native groups. The U of A Office for Sustainability recognizes the history and contribution of the Osage, Cherokee, Caddo, and other tribes who have protected the space surrounding the University of Arkansas.

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