

# UVA SUSTAINABILITY

ANNUAL REPORT 2023-2024

*Steward • Engage • Discover*



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# Letter from the President



**AT THE UNIVERSITY OF VIRGINIA**, we are committed to developing effective, interconnected, and high-impact sustainability measures, through curriculum, research, operations, and community engagement for the benefit of current and future generations.

The urgency of climate change and the ambitious goals that UVA has set for 2030 and beyond require fundamental shifts in our regular operations. This work is carried out through the efforts of thousands of individuals, from students developing ideas through coursework, to facilities staff making physical plant and building upgrades, to institution-wide changes in energy and waste management. I am grateful to all who share our goals and who have taken actions both big and small every day. We have much more to do.

I hope that this year's Sustainability Annual Report will both remind us of how much progress we have made and inspire new ideas and collaborations. I hope that readers will take heart in knowing our goals are within reach, and that creativity and persistence are rewarded. I hope that those who have overseen changes will share their experiences, so that we might learn from the work of others. I am certain that UVA will continue to draw on our exceptional talent, expertise, and commitment to service to remain a sustainability leader in higher education and beyond.

**James Ryan**

*President, University of Virginia*

August 2024

# Overview

## SUSTAINABILITY ACTION IN HIGHER EDUCATION

has grown exponentially over the past decade. UVA is no exception. Building on many years of student-led initiatives from the 1990s on, UVA's sustainability efforts have gained local and national recognition in pursuit of our ambitious sustainability goals. This past year the University of Virginia was included in the Princeton Review's Top 50 Green Colleges ranking. We also met our ten-year Department of Energy Better Buildings energy goal and received an AASHE STARS Gold rating, with our highest score to date.

Last October, the UVA Office for Sustainability celebrated its ten-year anniversary, which was an opportunity to reflect on recent growth in the University's programs and initiatives. Since 2013, UVA has set forth two strategic sustainability plans (2016–2020 and 2020–2030), with the 2030 plan including goals for carbon neutrality and a transition away from fossil fuels.

We achieved our carbon emissions reduction goal six years early, in 2019. UVA now offers majors in Global Environments & Sustainability, Environmental Thought and Practice, a minor in Global Sustainability, and numerous sustainability courses through a variety of academic departments. UVA's Environmental Institute funds interdisciplinary research teams and training, working at the forefront of solutions. The Office for Sustainability has robust outreach programs that engage thousands of students and employees each year in topic areas ranging from environmental equity to zero waste. The newly-envisioned Morven Sustainability Lab together with over 30 sustainability-focused student groups also play an important role in UVA's collaborative approach.

In the past decade, UVA has added utility-scale and rooftop solar to its energy portfolio. Our award-winning Building Efficiency Program has worked on 75 buildings over the past nine years, avoiding energy costs of \$14 million over the past three years alone. And our campus sustainability networks continue to grow—both regionally with our Resilient Together partnership with the City of Charlottesville and Albemarle County, and nationally through the collective of over 30 institutions in the Ivy Plus Sustainability Consortium, all accelerating action in higher education.

We continue to use our strategic framework of engagement, stewardship, and discovery to build community, use resources wisely, and leverage curriculum and research to help solve global challenges and create transformative change. We have made great progress—from reducing our environmental footprint to sustainability-focused curriculum and groundbreaking research—but have much more to do. We hope that you will join us in this important work.

The progress highlighted in this annual report would not be possible without the dedication and leadership of the University Committee on Sustainability, Environmental Institute, Student Council Sustainability Committee, dozens of sustainability student organizations, the Office for Sustainability, Global Environments + Sustainability program, Environmental Thought and Practice major, the Morven Sustainability Lab, along with many other collaborators and countless individuals taking action both big and small.

**Thank you!**

## 2023–2024 HIGHLIGHTS

### STEWARD

- **44.8% reduction** in carbon emissions since 2010
- **24.8% reduction** in potable water use since 2010
- **36.8% reduction** in total waste generated since 2010, with **38.6% diverted** from landfills in 2023, although a **10.8% increase** in landfilled waste between 2022 and 2023
- **34% reduction** in reactive nitrogen losses to the environment since 2010, which exceeds the 2030 goal
- **37% of food and beverage purchases** were sustainable in 2023 (includes UVA Dine and the University Medical Center). This exceeds the 2030 goal of 30%.

### ENGAGE

- The Office for Sustainability's (OFS) **three leadership programs**—Sustainability Advocates, Zero Waste Ambassadors, and the Eco-Leaders—supported **75 students** enhancing students' engagement skills through project-based learning and peer-to-peer education.
- The OFS student-led Service Learning team coordinated nine Corner Cleanups, engaging over **220 students** in trash and recyclables collection. Additionally, they hosted **50+ garden workdays**.
- The **Sustainable Labs program** engaged **39 labs** on Grounds in the 2023 International Freezer Challenge.
- UVA and local organizations celebrated Earth Month with over **70 events** on Grounds and in the community.

### DISCOVER

- The percentage of sustainability-focused or sustainability-inclusive academic classes at the University increased from **6.6%** in 2021 to **9.6%** in 2024. Currently, **82 of UVA's 187 academic departments** (43%) include sustainability courses.
- The **Environmental Institute** awarded **\$3 million** to Climate Collaboratives, interdisciplinary research teams working on solutions for specific climate-related challenges.
- In summer 2023 the UVA Decarbonization Academy kicked off its second year with a multidisciplinary cohort of **14 student fellows** and **10 faculty and staff mentors**. This immersive summer experience enables students to directly address sustainability on Grounds through a range of projects.



An aerial photograph of the University of Virginia campus, featuring its iconic red-brick buildings and lush green trees. The image is overlaid with a green tint and a sunburst graphic in the upper left corner, with rays extending across the page. The word "STEWARD" is prominently displayed in large, white, sans-serif capital letters, partially obscured by the sunburst rays.

# STEWARD

**Ensuring the sustainability and longevity of UVA's built and natural environments and reducing its environmental impact to support the goals and function of the University.**

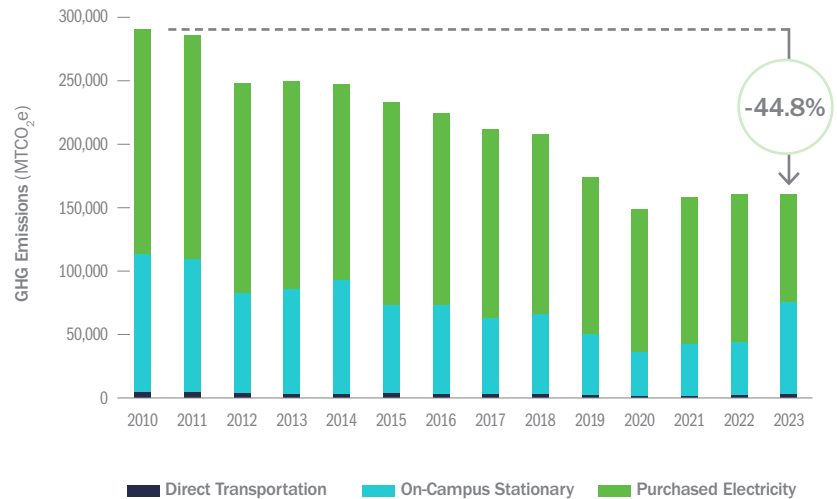


# Climate Action

## GOAL

Be carbon neutral by 2030 and fossil fuel-free by 2050.

## CARBON EMISSIONS 2010–2023



### UVA'S CARBON NEUTRALITY GOAL INCLUDES GREENHOUSE GAS (GHG)

**EMISSIONS** related to the operation of the University—commonly referred to as Scope 1 and Scope 2 emissions. In calendar year 2010, the baseline year for emissions analysis, UVA's Scope 1 and 2 emissions footprint was 291,117 metric tons of carbon dioxide equivalent (MTCO<sub>2</sub>e). In 2023, Scope 1 and 2 emissions decreased to 160,576 MTCO<sub>2</sub>e, constituting a 44.8% reduction in emissions over 13 years. This reduction is a significant step towards achieving our climate goals. These emissions reductions have been driven by several initiatives, including:

- **Existing Buildings:** UVA Building Efficiency Program, including Sustainable Labs and Sustainable Clinics
- **New Buildings:** UVA Green Building Standards, including energy targets and fossil fuel-free requirements
- **District Energy Upgrades:** Fuel switching in the Main Heat Plant, as well as chilled water, hot water and steam optimization
- **Renewable Energy:** Off-site utility-scale solar and roof-top solar
- **Fleet:** Electric vehicles

Fontaine zero combustion energy plant construction  
(Photo by Facilities Management)





## District energy decarbonization, renewable energy

### SOLAR PANELS ON GROUNDS

Adding renewable energy infrastructure to buildings on Grounds is an important element of our sustainability plan. Our target is to install 3 megawatts (MW) of rooftop solar photovoltaic (PV) by 2030. This year we added two new PV installations. The 2420 Old Ivy Hall PV array is a 208 kW system, which accounts for approximately 27% of the building's electricity consumption. The second installation is a 58 kW array on the new School of Data Science. This installation is smaller due to the limited roof space but will produce approximately 15% of the building's anticipated electricity use.



Solar panels on the roof  
of 2420 Old Ivy Hall

### LOW TEMPERATURE HOT WATER PROJECT

One key decarbonization strategy for UVA is to transition academic Grounds from steam and high-temperature heating water (370 degrees F and 230 degrees F respectively) to low-temperature heating water (170 degrees F). In 2018 Energy and Utilities initiated a three-phase project with this in mind: first, transition buildings and heating distribution from high-temperature heating water; second, add a large heat recovery chiller at the North Grounds Chiller Plant; and third, transition academic buildings currently on steam to low-temperature heating water and subsequently decommission the steam system. The large heat recovery chiller installed during the second phase of the project is fully operational and provides both the base load heating for academic Grounds buildings and base load cooling for the Medical Center buildings. This will reduce our net carbon emissions by over 16,000 MTCO<sub>2</sub>e and save over \$1 million in operating costs.

### FONTAINE CENTRAL ENERGY PLANT

We have begun construction on our “energy plant of the future.” This new 19,000 square-foot plant will provide thermal utilities (heating and cooling) for the Paul and Diane Manning Institute of Biotechnology and will be expanded to serve other buildings in the Fontaine Research Park. The new facility will be fossil fuel-free (zero



combustion) and will utilize geexchange wells, heat recovery chillers, and thermal storage tanks to produce and store heating and cooling water. The design will make the primary heating and cooling equipment visible and accessible, to help raise awareness of sustainable technology. The project was initiated in late 2022 and will be complete in 2025.



## Building Efficiency

### BUILDING EFFICIENCY PROGRAM

UVA's Building Efficiency Program has upgraded 75 buildings over the past nine years, achieving avoided energy costs of \$14 million over the past three years. The Building Efficiency Program upgrades building automation systems, LED lighting, and tunes these systems to perform efficiently in academic and other buildings.

### SUSTAINABLE LABS

As an R1 institution with over 540 principal investigators performing world-class scientific research, it is imperative for UVA to address the disproportionate use of resources like energy and water in lab buildings. The Office for Sustainability's Sustainable Labs program combines energy efficiency and risk management strategies with outreach and engagement initiatives to implement comprehensive decarbonization strategies in research buildings on Grounds. The Smart Labs program is being implemented in six lab buildings, all of which also receive tailored outreach for research faculty, students, and staff through the Green Labs program. Since 2021, the program has saved a total of \$2.3 million in utility costs, while advancing safety in our labs.



**TOP**  
Fontaine Central  
Energy Plant (Illustration by  
Ayers Saint Gross)

**BOTTOM**  
Sustainable Labs working  
on lighting upgrades at MR5

## SUSTAINABLE CLINICS

New healthcare-specific programs are an important aspect of UVA's goals to be carbon neutral by 2030 and fossil fuel-free by 2050. Sustainable Clinics focuses on existing building efficiency upgrades such as HVAC updates and lighting retrofits. The Sustainable Clinics program is built on the successful Building Efficiency and Sustainable Labs programs and will use a revolving fund model whereby cost savings from one building will pay for the next project to fund energy performance improvement measures customized to healthcare environments. The first three buildings in phase one of Sustainable Clinics are UVA Health's Emily Couric Clinical Cancer Center, Battle Building and Primary Care Center.

## GREEN BUILDING STANDARDS AND LEED

UVA's Green Building Standards (GBS), informed by standards such as LEED, ASHRAE, AIA, WELL and others, have become an integral part of the Facilities Design Guidelines and are required for all renovations and new construction. These standards were awarded a 2024 Department of Energy Better Practice Award. The GBS set minimum sustainability requirements for all projects and establish a process for collaboratively identifying project-specific sustainability features. The GBS complement the LEED Green Building Rating System to ensure strong performance across UVA's building portfolio. The University now has 85 LEED-certified green building projects. The School of Data Science's flagship building opened in April 2024, highlighting a number of innovative, sustainable design features. Designed to achieve a LEED Gold rating, the building includes rooftop solar photovoltaic panels, healthy materials, high-efficiency heating, cooling, and ventilation systems, and a pollinator-friendly green roof terrace.

Shannon Library opened this spring with several sustainability features, including storm water reclamation, daylight harvesting, historic preservation and reuse, healthy material selection and numerous energy-saving initiatives.



Sathish Anabathula

Sathish is the Associate Director of Power and Light and has been with the University for over 14 years. He is responsible for power distribution, exterior lighting, and PV solar on Grounds.

Sathish is always looking for opportunities to increase the solar footprint and overall energy efficiency of UVA's building portfolio. He leads rooftop solar tours to raise awareness about renewable energy generation at UVA. You can find him in his office on Grounds, on a solar rooftop giving students a tour, or at new construction sites figuring out service to new buildings.

Fun fact: he spends his free time on small home construction, helping his kids with robotics, fixing cars, or mountain biking.





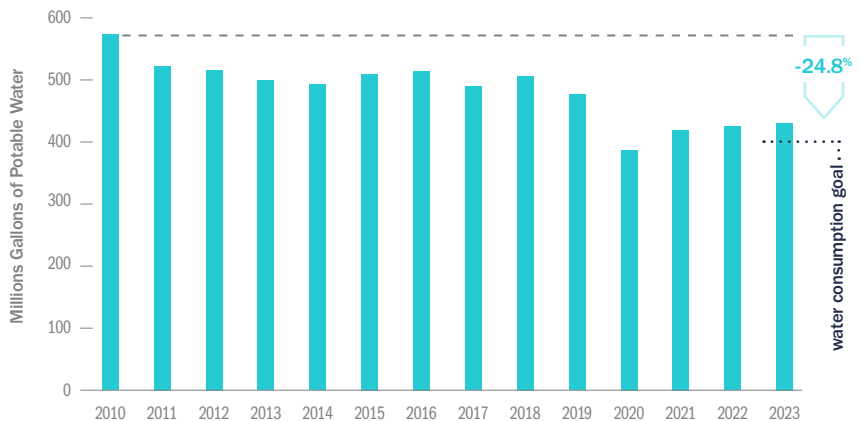
# Water

## GOAL

**Reduce potable water consumption 30% below 2010 levels by 2030.**

Compared to 2010 UVA has reduced total potable water usage by **24.8%**. In 2023, UVA consumed 432.03 million gallons of potable water, compared to 574.17 million gallons in 2010.

## WATER CONSUMPTION, 2010–2023



Clean Water Working Group  
(Photo by Jannatul Pramanik)

## Water conservation and infrastructure improvements

### REDUCTIONS IN CHILLED WATER CONSUMPTION

Much of the potable water consumed at UVA is used to create chilled water to cool buildings. The process normally outputs water as vapor as a part of the process. To reduce the need for more water, Energy & Utilities is installing non-potable water wells near cooling equipment to capture this water, helping to meet the 2030 water reduction goal.

Additionally, as part of a heating and cooling pipe project for the new Ivy Corridor complex, a water reuse system was installed. This allows for clean and cool condenser water from the HVAC system (typically drained to the sewer) to be collected from all planned buildings. The School of Data Science building's collection system is already operational and recovering moisture that is then used in the Massie Plant cooling equipment, reducing overall University demand for potable water.

**THIS PAGE**  
Beta Bridge Cleanup  
crew

**OPPOSITE**  
Beta Bridge Cleanup  
crew group photo

## Water conservation awareness

### OUTREACH AND EDUCATION

The UVA Clean Water Working Group promoted water quality awareness by hosting a film screening of the environmental documentary, "A River Called Home." The film follows the journey of four women who paddle the 350-mile-long James River, from its headwaters to the Chesapeake Bay. As part of the screening event, UVA students, staff, and community members enjoyed a Q&A session with director Jess Wiegandt, discussing topics ranging from water quality science and policy to the hidden joys and struggles of environmental/wildlife film-making. Additionally, the team tabled at the fall Student Activities Fair and the 2024 Eco Fair, as well as developed content on preventing sanitary sewer overflows (SSOs).







## ENGAGEMENT

Throughout the year, the UVA Clean Water group organized multiple stream and trail cleanups, with the largest being the seventh annual Beta Bridge stream cleanup. Held each April with the support of Sustainability Advocates and North Grounds landscape staff, this event offers a vibrant and impactful way for volunteers to celebrate Earth Month. In 2024, the event saw a turnout of over 35 volunteers, including the largest number of Charlottesville community participants in recent years. Enthusiastic community volunteers aged 4 to 64 joined UVA students and staff to make a tangible difference in protecting our local waterways. Volunteers removed over 40 bags of trash and recycling, totaling over 400 pounds, from the stream and banks along the railroad tracks beneath Beta Bridge.



Yatra Karki

Yatra Karki is the student co-chair for the UVA Clean Water Working Group. She works alongside staff co-chairs Brittany Olenslager and Dawson Garrod to improve the quality of our stormwater and advance water conservation efforts.

Yatra helps us advance our water stewardship goal through education and volunteer engagement projects such as stream clean ups and various pop-up events, including tabling at UVA's Eco-fair.

One tip she shared: start small and find events that align with your interests and schedule. Whether it's a local stream cleanup, a community garden project, or an awareness event, every effort counts towards a more sustainable future. Yatra said, **"Your actions, no matter how small, can make a big difference!"**

Fun fact about Yatra: she is trying to make a vegetarian version of a dish from every country in the world and is currently on North Macedonia.



# Materials and Waste

## GOAL

Reduce waste by 70% below 2010 levels by 2030.

As of 2023, UVA has reduced total waste generated by **36.8%** compared to a 2010 baseline. We also have diverted (through reusing, recycling, composting) 38.6% of this total waste. Landfilled waste increased by 10.8% compared to 2010 totals. UVA is in the process of strengthening sustainable procurement guidelines and expanding waste infrastructure to minimize waste and increase diversion rates. These numbers include waste processed from UVA owned and operated facilities within the Charlottesville/Albemarle area. The diversion rate includes recycled, reused, and composted materials.

## MATERIALS AND WASTE FOOTPRINT, 2010–2023



## Waste Minimization—Reuse and Sustainable Procurement

### HOOS REUSE ANNUAL MOVE OUT DONATION DRIVE

The 2024 Hoos ReUse move out donation drive stationed 24 dorm collection points, 19 outdoor donation bins, and seven food donation bins to collect unwanted items during student move-out. In total, these drop-off locations diverted 9,180 pounds of home goods and furniture from the landfill and approximately 1,100 pounds of non-perishable food, which was donated to the UVA Community Food Pantry.



### UVA REUSE STORE

The ReUSE Store redistributed over 11,100 UVA surplus items such as desks, lamps, and filing cabinets in 2023, totaling 830,260 pounds of material. Of this, 55% was sold to the general public, 16% was distributed to departments on Grounds, 14% was donated, and the remaining 15% was auctioned. Office for Sustainability student employee London Tuma partnered with the ReUSE Store to host two pop-up events at 1515 and Clark Hall to showcase available items at the store.

### SUSTAINABLE PROCUREMENT

This year, the Office for Sustainability sponsored a Cornerstone Program project focused on sustainable procurement. The team used resources from UVA's Sustainable Purchasing Leadership Council membership and conducted informational interviews with peer institutions to create a roadmap for the development of robust sustainable procurement policies and guidelines for the University. In addition, the Sustainable Procurement Working Group collaborated with UVA Marketplace vendors to improve sustainable product offerings; worked to include sustainability language in requests for proposals and contracts; and engaged with local caterers to improve compliance with UVA's Single-Use Plastics Reduction Requirements.

## Waste Diversion—Recycling and Composting

### GREEN GAMES

Teaming up with Virginia Athletics, the Office for Sustainability led another successful year of Green Game events. Over 200 student volunteers sorted waste at six home football games and four home basketball games. Throughout the football season, students and staff helped divert over 60,000 pounds from landfills, resulting in a \$6,000 donation from the GFL-sponsored “Race to Zero Waste” campaign and an award from Virginia Green.

**TOP**  
Green Games at  
Scott Stadium

**BOTTOM**  
Compost expansion  
with Black Bear  
Compost



## ZERO WASTE EVENTS

The Zero Waste Events program aims to divert waste from the land-fill and support the University's waste reduction goal at events. The Office for Sustainability and UVA Recycling worked a total of 143 zero waste events on Grounds, hosted by 84 unique departments/student organizations, with over 55,000 attendees. A few major zero waste events were Reunions, First Year Food Fest, and the Lighting of the Lawn.

## ZERO WASTE AMBASSADORS

The student led Zero Waste Ambassador team had another successful year of supporting composting efforts on Grounds. The 22-person cohort hand-sorted through compost daily to remove contamination of non-compostable items, resulting in 21,076 pounds of material diverted from the landfill. With the help of the Facilities Management Landscape Services team, the program was able to expand and open a second sorting location, allowing composting to be provided on the Runk Dining Hall patio, as well as the Amphitheater, O'Hill patio and outside of the Castle.

## COMPOSTING EXPANSION

Since the start of the academic year, Facilities Management's Custodial Services teams have increased compost service to over 50 Central Grounds buildings, adding more than 200 bins to collect food scraps in kitchenettes and paper towels in shared bathrooms. Further expansion is underway.

## UVA WASTE DIRECTORY

To reduce potential confusion at recycling bins and contamination in the recycling and compost streams, the Office for Sustainability launched the [UVA Waste Directory](#) in August 2023. The tool enables anyone in the University community to search for an item by QR code and learn how and where to recycle, compost, or dispose of it properly on Grounds. Since the launch, 275 users have conducted over 800 waste-related searches.



Jordan Perez

Jordan Perez is an undergraduate student at UVA studying civil engineering and working as a student employee at the Office for Sustainability to bring back the first-year dorm energy race.

The energy race is a competition between dorms to see which can reduce energy usage the most. By getting students thinking about how their actions impact the environment, Jordan is making sustainability a fun competition while working toward UVA energy goals.

Jordan recommends: **"Don't bite off more than you can chew."** Instead of trying to change everything all at once in the name of sustainability, he encourages taking small steps that combine sustainability goals with other goals. For example, financial savings and energy goals can be combined by turning down the heat a couple of degrees in winter.





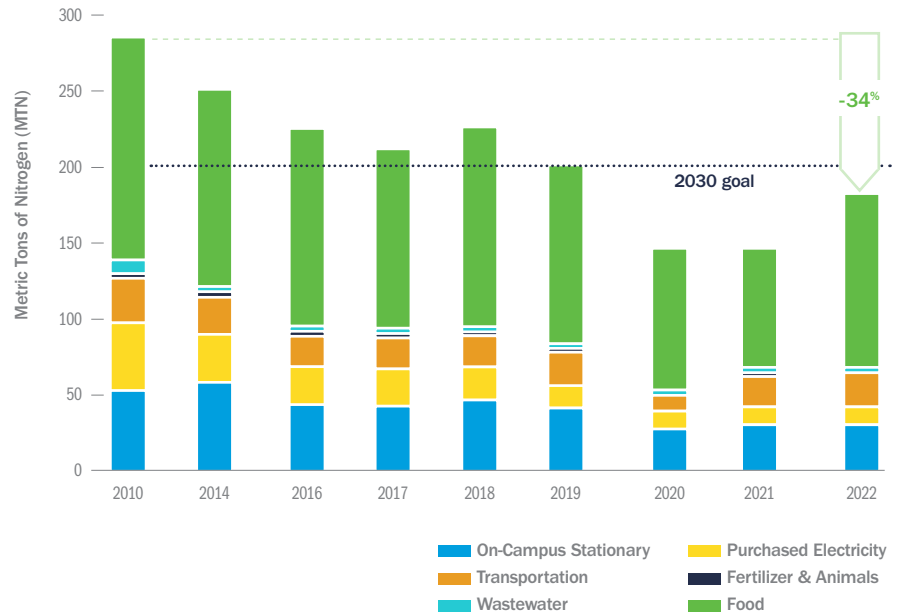
# Nitrogen

## GOAL

**Reduce reactive nitrogen losses to the environment 30% below 2010 levels by 2030.**

Reactive nitrogen contributes to algae blooms, ozone depletion, forest dieback, and respiratory illness. It is a common byproduct of three important processes: combustion, food production and wastewater treatment. UVA has achieved a **34% reduction** in reactive nitrogen losses to the environment as of 2022 compared to 2010, which exceeds the 2030 goal. Reductions are due to efforts to reduce energy use and procure more sustainable energy sources, as well as a move towards plant-based offerings in dining halls. UVA's nitrogen (N) footprint has continued to decrease despite growth in the student population and associated food purchasing. Food-related nitrogen data is intensive to collect and calculate, so the data typically lags by one calendar year.

## NITROGEN FOOTPRINT, 2010–2022



Nitrogen Working Group  
Olivia Biedler

## Calculate footprints and raise awareness

### NITROGEN WORKING GROUP

The main goal of the Nitrogen Working Group (NWG) is to track, validate, and determine strategies to reduce UVA's annual nitrogen footprint to meet the 30% reduction goal by 2030. The N footprint tool was developed at UVA, initially for specific countries, and then for institutions and communities. In 2010, UVA was the first institution to track its nitrogen footprint. In 2017, the Nitrogen Footprint Tool Network at UVA worked with the University of New Hampshire (UNH) to develop SIMAP, which is based at UNH. The tool allows its 600+ users to track their institutional N footprint.



### NITROGEN FOOTPRINT TRACKING

Since food is the largest contributor to the University's N footprint, each year the NWG collaborates with UVA Dine, the Health System, Darden, and Facilities Management teams to gather data and evaluate UVA's N footprint. This year, the team worked with two platforms to optimize annual data tracking, streamlining the data collection and validation process.

### MORVEN SUSTAINABILITY LAB NITROGEN FOOTPRINT

In 2023 the first Morven Sustainability Lab N footprint was calculated. The team gathered data on energy use, food from catering, fertilizer, commuting, event travel and land use to determine the first footprint for calendar year 2022. The team presented the results to a large group of Morven collaborators, which resulted in plans to expand future analysis to quantify the impact of nitrogen sequestered on Morven's land.

### OUTREACH AND ENGAGEMENT

Over the past year, the NWG has focused on promoting awareness of the nitrogen footprint as a relevant environmental sustainability metric. The team has expanded the NWG's social media presence by regularly posting Instagram Reels featuring nitrogen-friendly recipes, some of which have received over 1,000 views. A new program also was created to introduce first-year students to the concept of nitrogen footprints within their residence halls.

**TOP**  
Nitrogen Working Group

**BOTTOM**  
Nitrogen Working Group  
Instagram profile





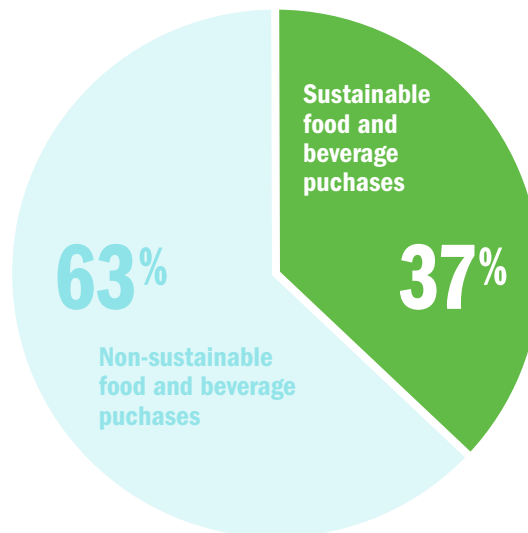
# Food

## GOAL

**Increase sustainable food purchases to 30% of the annual total by 2030.**

In 2023, 37% of the University's food and beverage spend at UVA Dine and the University Medical Center combined was sustainable, per the Association for the Advancement of Sustainability in Higher Education (AASHE) STARS criteria. Darden dining services are not represented in the CY2023 data.

## SUSTAINABLE FOOD & BEVERAGE PURCHASES, 2023



## Increase sustainable food purchases, raise awareness, address food insecurity

### CVILLE MARKETS

In 2023 UVA Dine hosted six “Cville Markets”—an on-Grounds farmers market that allowed students to use their Flex dollars to purchase from local farmers and vendors. Markets at the Amphitheater and the South Lawn hosted 10-15 vendors during each event and garnered the participation of hundreds of students. Some markets held special chef pop-ups to sample and give feedback on new recipes at the dining halls. Additionally, two “Stock the Pantry Swipe Drive” events were able to generate 1,981 pounds of food donations to the UVA Community Food Pantry.

Goldman Farm family





### GREEN GIVEAWAY PRODUCE POP-UPS

In 2023 UVA Dine's Green Dining program hosted five Green Giveaways including a pop-up produce stand where Green Dining team members distributed free local produce sourced from Morven Kitchen Garden and 4P foods and recipe cards to the UVA community. Leftover produce from the event was donated to the UVA Community Food Pantry.



### SUSTAINABLE FOOD COLLABORATIVE (SFC) LAUNCHES “GREEN UP YOUR FOOD GAME”

Participants in the “Green Up Your Food Game” Challenge chose from a curated list of 30 actions spanning three categories: dining, volunteering, and educational events. Each activity was assigned a point value, incentivizing students to prioritize impactful and community-oriented actions. Examples of these activities included volunteering at local food pantries, preparing sustainable meals for friends, and joining student organizations focused on food sustainability, insecurity, or equity. There were 45 active participants, 548 website visits, and 387 sustainable actions completed during the Challenge.

### SFC SUPPORTS BIPOC FARMING AND PROCUREMENT

This initiative includes funding to support a Black, Indigenous, and People of Color (BIPOC) Sourcing Pilot, managed in association with 4P Foods and the Local Food Hub. The funding covers the additional costs of UVA Dine's purchasing of produce grown by local BIPOC farmers and supports the expansion of small BIPOC farms needed to meet the needs of a large institution like UVA. This initiative is one of the first of its kind and represents a significant step toward closing historic social gaps in agriculture, promoting food justice and sustainability in UVA's food purchasing.

### SUSTAINABLE DINING IN HEALTHCARE

University Medical Center's dining provider, Morrison Healthcare, is expanding its local purchasing volume through vendor partnerships facilitated by Cureate. They will provide a variety of locally-produced meals for after-hours, and an increase in locally produced snacks and retail items.

**THIS PAGE**  
Food Assist table

**OPPOSITE**  
Goldman Farm tilling

### UVA DIALYSIS FOOD PHARMACY PROGRAM

This program began as a pilot with the Blue Ridge Area Food Bank (BRAFB) in 2020 and has grown to currently serve six of 12 dialysis units in the program with two more to be added in Fall 2024. Patients may receive a bag of food each month at the dialysis unit, or even up to once per week when needed. The bag includes fresh fruits and vegetables and other healthy options for kidney disease patients. In 2023 the program provided 3,005 bags to over 300 patients. The program funding with BRAFB ended in July 2023 and to date, the program has raised over \$35k from donors in and around UVA with the hopes of continuing the program.



Allie Berry

Allie Berry is the sustainability manager for UVA Dine and the Green Dining student team. She and her team are working on sustainable and responsible purchasing, reducing food waste, and promoting climate-friendly menus. They continually find ways to engage students on waste and how they can have an impact, including donating excess products to organizations such as Food Assist.

Her best advice: **“Taking action can come in so many forms! Get to know your community, tell folks about issues you are passionate about, and try to learn what messages resonate with the groups you are most interested in getting on board. Each step adds up to big impact.”**

Fun fact: she loves to experiment with homebrewing and fermenting foods — a corner of her kitchen is always filled with bubbling kimchi, mead, or pickled veggies.

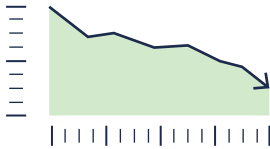


# UVA Sustainability Highlights

## STEWARDSHIP

**45%**

Reduction in **carbon emissions** since 2010



**\$14**  
million

**avoided utility costs** from academic buildings

**27%** ⚡

Reduction in **energy use** per square foot since 2013

Building Energy Efficiency program has worked on **75 buildings**.

Since 2021, Sustainable Labs has saved a total of **\$2.3 million** in utility costs.



**25%**

Reduction in **potable water use** since 2010



**3,272**  
tons

**Waste diverted** from landfill

**32** MW

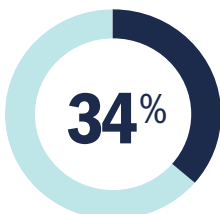
Utility-scale **Solar off-Grounds**



**593kW** Solar installed on-Grounds

**37%**

**Sustainable food** of the total food spend



Reduction in nitrogen losses to the environment since 2010

**35**

Vehicles in the Facilities Management fleet are **battery-electric** with **24 charging stations**.





220

**Students** collected trash and recycling during nine Corner Cleanups.



190+ Labs

Enrolled in **Green Labs Program** since 2014, representing about one third of labs on Grounds



**133** Green Games volunteers worked 10 games.

70+

Events were held across UVA and in the community during **Earth Month**.



50



**Student-hosted garden workdays** generated food for UVA food pantries and providing a stress-reducing activity.

34



**Dorm sustainability engagement events** were hosted by Resident Advisors.

#49

*The Princeton Review*  
**Green Schools**



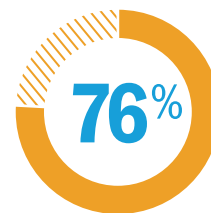
**GOLD**

AASHE Sustainability Tracking Assessment & Rating System

635+



**Sustainability-related courses**



of departments that conduct research include some **sustainability-focused research**

280+



Faculty are engaged in **sustainability-related research**.



# ENGAGE

**Ensuring  
sustainability  
awareness, literacy  
and action across  
Grounds and beyond  
through innovative  
communications,  
programs, inclusive  
partnerships, peer-  
to-peer outreach and  
more.**



# Accountability

## GOAL

**Advance sustainability leadership and impact by incorporating environmental, economic, and equity considerations into decision-making, building accountability for sustainability goal achievement at every level of the university.**



Thankful Thoughts picnic

## School and unit strategic plans

### BIOMEDICAL ENGINEERING

The Biomedical Engineering (BME) department innovates and teaches at the intersection of life sciences, engineering, and medicine. This year—with leadership from its Department Chair, faculty, and the Graduate Biomedical Engineering Society students—BME has developed UVA's first departmental-level sustainability strategic plan. The plan encompasses events and outreach, Green Labs, procurement and curriculum, and establishes a model for affiliated lab and classroom spaces.

### UVA HEALTH UNIVERSITY MEDICAL CENTER

Resource efficiency is a cornerstone of UVA Health's One Future Together strategic plan and necessary to be a best-in-class academic health system. Currently the Medical Center buildings account for 30% of the University's total energy consumption and carbon emissions and



are thus a high-priority area for the University's sustainability strategic planning and project implementation. This year the UVA Health Sustainability Committee—which includes physicians, nurses, facilities leaders, and procurement specialists—identified some of the biggest challenges in their respective areas. The Committee's leaders subsequently prepared recommendations for governance and strategic initiatives to help meet the 2030 sustainability goals and be at the forefront of patient care excellence.

### SCHOOL OF ARCHITECTURE

School of Architecture students, faculty and staff conducted benchmarking of peer schools and mapped the building's most difficult waste challenges in preparation for developing their sustainability strategic plan. Students also established a new sustainability-focused student organization, the Society of Sustainability, and worked effectively with related student organizations to present their waste reduction ideas and sustainability curriculum recommendations to faculty.



Junk Labz



Noah Perry

Noah is a fifth-year Graduate Research Assistant and PhD Candidate in the Civelek Lab within the Department of Biomedical Engineering (BME). His efforts have been focused on working toward the 2030 sustainability goal of building accountability. He has been instrumental in creating an official BME Sustainability Plan.

For people who want to take action, Noah suggests: “**Find community and start small.** Since sustainability is a broad topic, that can make individual efforts feel futile. However, significant change comes from numerous efforts that build momentum and create sustainable culture. It's easier to see your impact when you join forces with other individuals.”



# Equitable Places

## GOAL

Partner with our community to accelerate collaborative initiatives to advance sustainable, equitable, and healthy places for all.



Martin Luther King, Jr.  
Community Walk (Photo by  
Alexandria Searls)

## Environmental justice

### EQUITY & ENVIRONMENT STUDENT EMPLOYEE TEAM

This year, the Office for Sustainability onboarded four interns dedicated to student programming at the intersection of equity and sustainability. This Equity & Environment team organized a variety of events centered on themes such as food justice, community appreciation, civic engagement, and more. The group's Thankful Thoughts initiative prompted the writing of over 80 letters to express gratitude to 18 community groups, including Cultivate Charlottesville and Loaves and Fishes, for their impactful contributions in Charlottesville and beyond.

### MARTIN LUTHER KING, JR. COMMUNITY WALK

Cold temperatures and blustery winds didn't stop nearly 100 people from enjoying a community walk-and-learn as part of the 2024 Community MLK Celebration, the theme for which was "The Constant Pursuit of Justice." Held in collaboration with Albemarle County and the City of Charlottesville Bicycle and Pedestrian Advisory Committee, the walk enabled participants to explore numerous community sites associated with the fight for civil rights, learn from one another's historical knowledge, and identify new walking and biking routes.



## Student leadership development and service

### SUSTAINABILITY STUDENT LEADERSHIP PROGRAMS

The Office for Sustainability's three leadership programs—Sustainability Advocates, Zero Waste Ambassadors, and Eco-Leaders—supported 75 students in enhancing their engagement skills through project-based learning and peer-to-peer education. Some notable projects included planting native species along Engineers Way in collaboration with UVA Landscape Services, organizing 34 sustainability-focused dorm engagement events, and setting up a new compost sorting location on Tree House Drive.

### SUSTAINABILITY SERVICE

The student-led Service Learning Team coordinated nine Corner Cleanups, involving over 220 students in trash and recyclables collection. Additionally, they hosted over 50 garden workdays, providing hands-on sustainable gardening experience, and partnered with a class to transform the garden shed into a public art piece centered on food equity and access.

### BRITT WRAY VISITS UVA

In February the Office for Sustainability partnered with the Environmental Institute, Public Pathways Program, the Career Center and the Contemplative Sciences Center to host “From Fear to Action: Thriving in a Changing Climate.” An audience of nearly 200 UVA faculty, students, and staff listened to Britt Wray, a Stanford researcher and author, on how to transform climate anxiety to climate action and hope. After the talk students enjoyed a resource/career fair and mindfulness walk near Dell Pond.



**TOP**  
Environmental Justice  
Collective

**BOTTOM**  
Britt Wray event



## Employee engagement

### NEW GREEN WORKPLACE

UVA's Green Workplace Program continues to engage employees in actions that conserve resources, save money and advance sustainability. The program was refreshed this year to include new high-impact actions and a new focus area: Social Equity and Health. This year's newly-certified workplaces include the Division for Diversity, Equity, and Inclusion, Virginia Humanities and UVA Recreation.

### EMPLOYEE ENGAGEMENT EVENTS

The Office for Sustainability engaged faculty and staff through various events throughout the year including an employee volunteer day at the Morven Kitchen Garden and Lunch and Learns on single-use plastics reduction, green holiday gifting and events, and Charlottesville's climate action plan. The Sustainability team also collaborated with various departments and units to celebrate national Bike-to-Work Week by hosting bike-commuter-appreciation stations on Grounds each day throughout the week to encourage sustainable fossil-fuel free modes of transportation.

### LAB ENGAGEMENT

The Sustainable Labs Program engaged a record number of labs on Grounds in the 2023 International Freezer Challenge, a global competition hosted by the International Institute for Sustainable Labs (I2SL) and My Green Lab that incentivizes safe and sustainable cold storage management.

The Kibbe-Tsihlis lab, led by Dr. Nick Tsihlis and Dean Melina Kibbe, was recognized for having the greatest impact in the 2023 Challenge, saving an estimated 47 kWh per day through their efforts. Dean Kibbe has been a strong advocate for laboratories to engage with the Green Labs program to explore sustainable research practices that simultaneously improve the safety and efficiency of labs.

## Partnerships beyond Grounds

### EARTH MONTH

In April the UVA and Charlottesville-area communities embraced Earth Month, a packed 30 days of events celebrating our shared planet. UVA Sustainability helped coordinate, collaborate, and



### Tytus Suchotinunt

Tytus Suchotinunt is a fourth-year student majoring in Global Environments & Sustainability. He is also a student employee with the Office for Sustainability on the Equity and Environment team, tackling issues at the intersection of environmental sustainability and social justice.

Recognizing the lack of diversity within the sustainability movement on Grounds, his first project was to host a roundtable for a multicultural group of student leaders eager to kick-start environmental careers. Tytus also addressed food equity on Grounds by hosting educational and eco-friendly meal prep classes with the Teaching Kitchen.

When taking action and navigating environmental advocacy, Tytus advises: “**Hold tightly to your values and keep sight of your purpose; otherwise, it's easy to get lost.**”

cross-promote over 70 events. There were guided tours, clean-ups, panel discussions, film screenings, cooking classes, book talks, hands-on workshops, demos, and more. UVA's annual Eco-Fair event attracted over 300 attendees at Peabody Lawn where 26 tabling organizations shared accomplishments and ways to engage more deeply in sustainability progress at UVA and beyond.



Resilient Together  
workshop

### **RESILIENT TOGETHER**

The City of Charlottesville and Albemarle County, with UVA as a partner, launched Resilient Together in 2023. This is a joint community engagement and planning process that will result in parallel plans for the City and County, focused on primary climate change risks identified for our region, areas of greatest vulnerability and strategies to ensure our community is strong, safe and healthy in the face of a changing climate. UVA's Resilient Together group has been evaluating and identifying opportunities for university connections to the City and County's plans, as well as strategies for UVA.

### **ACC SPORTS SUSTAINABILITY CONFERENCE**

UVA hosted the third annual Atlantic Coast Conference Sports Sustainability Conference in June 2023. Over 50 attendees from ACC Schools, industry associations, and other higher education institutions participated in three days of networking, discussion, and tours on topics such as sustainable athletic operations, zero waste games, sponsorships, concessions, fan engagement and more.

### **IVY PLUS SUSTAINABILITY COLLABORATIVE**

The Ivy Plus Sustainability Collaborative, co-chaired by sustainability staff at UPenn, Caltech, and UVA, is comprised of 30 campus sustainability programs across leading U.S. research institutions. The Collaborative seeks to inform institutional priorities and communicate collective impact, trends, and updates to executive leadership—including its report created this year for the schools' executive vice presidents, "Understanding and Preparing for Climate Action on Scope 3 Greenhouse Gas Emissions."



# DISCOVER

**Fostering critical thinking and innovative solutions to global and local sustainability challenges through interdisciplinary and inclusive teaching and research.**





# Research

## GOAL

Promote sustainability research and UVA's reputation as a locus of sustainability.



Wang Lab

## Interdisciplinary teams, pan-university collaboration

### CLIMATE COLLABORATIVES TEAM

In August 2023 UVA's Environmental Institute awarded its first two Climate Collaboratives: interdisciplinary research teams funded for three to four years as they work with communities to co-create climate adaptation and mitigation strategies. The first collaborative research teams involve 11 faculty from eight units and will address renewable energy in Appalachia and water insecurity in rural India.

### INAUGURAL PRACTITIONER FELLOW

The Environmental Institute welcomed UVA's first Environmental Sustainability and Resilience Practitioner Fellow, Elizabeth Andrews, for the academic year. Andrews is an accomplished environmental attorney who has spent her career bridging the gap between policy and scientific discovery. She has brought deep expertise in building local and statewide community partnerships, including work with faculty sponsor Tanya Denckla Cobb on the Resilience Adaptation Feasibility Tool (RAFT).

### ENVIRONMENTAL FUTURES FORUM 2023

80 UVA faculty members and researchers were joined by Charlottesville community members in August to discuss the role of community-engaged and place-based research on climate solutions. The forum focused on the importance of thoughtfully engaging communities to inform and shape major research projects from conception to implementation.

### CLIMATE RESTORATION INITIATIVE (CRI)

The Environmental Institute's Climate Restoration Initiative (CRI) convened a team of 11 UVA faculty members, alongside undergraduate and graduate students and staff across disciplines and collaborators from across the state to research solutions in negative emissions, or carbon dioxide removal, to make Virginia's economy carbon neutral. The team was formed in 2020, produced an initial report in 2022, and that year received \$1.55 million in philanthropic support to expand the initiative.

### DECARBONIZATION CORPS

In the summer of 2023, the Environmental Institute launched the new Decarbonization Corps with support from a private donor. Four projects were funded, which brought together an external organization, a UVA faculty member to lead research and a student intern. The first four projects included low-carbon cement, decarbonization of the healthcare system, forests and carbon accounting and seagrass ecosystem carbon valuation.

### CLIMATE AND HEALTH RESEARCH WORKSHOP

UVA School of Medicine and School of Nursing researchers and clinicians are increasingly focused on preparedness for emerging patient health needs associated with climate change. This year three important events helped advance knowledge, develop skills and build networks across academic disciplines: the "Climate and Health Research Workshop" hosted by the UVA Environmental Institute; "Climate Change and Disproportionate Health Burdens," part of Democracy360 hosted by the UVA Karsh Institute of Democracy; and "Protecting Health in a Changing Climate: Rising Heat and Health in Virginia," a conference hosted by the School of Nursing with faculty from the School of Medicine and Virginia Clinicians for Climate Action (VCCA).



**Tabatha Gilbert  
and Alicia White**

Tabatha Gilbert and Alicia White are two pre-op nurses at the Outpatient Surgery Center. They have a combined experience of over 27 years serving the needs of patients.

Tabatha and Alicia made a commitment to address single-use plastics for personal belonging bags in the hospital after seeing an inspiring video on hospital waste at a nursing conference. They developed a plan, received approval and implemented a new system. Patients now have an option to bring a bag from home or use new, reusable blue bins, thus supporting UVA Health's waste reduction efforts. They feel good about being responsible stewards of resources that's also in alignment with patient care excellence.

Their tips for others: "Don't hesitate to ask 'why' to understand deeper motivations and keep a positive mindset, especially during difficult moments."



# Curriculum

## GOAL

Enhance sustainability-focused teaching, curricular development, and experiential learning.



## Sustainability-focused courses

### SUSTAINABILITY IN THE CURRICULUM

UVA's AASHE STARS report includes an analysis of the number of sustainability-focused or sustainability-inclusive classes. The percentage of sustainability-focused or sustainability-inclusive academic classes at the University increased from 6.7% in 2021 to 9.6% in 2024. Currently, 82 of UVA's 187 academic departments (43%) include sustainability course offerings.

### GLOBAL STUDIES ENVIRONMENTS & SUSTAINABILITY MAJOR AND GLOBAL SUSTAINABILITY MINOR

As of May 2024, 307 Global Environments + Sustainability Majors have graduated since the program's first graduating class in 2016. The Global Environments + Sustainability major in the Global Studies program offered five new courses in academic year 2023–2024 both on Grounds and abroad:

- GSVS 3110: Sustainable Communities (Summer 2023) at Morven Farm
- GSVS 2559: UVA in Lithuania: Sustainable Urban Design Challenge (Summer 2023)

### THIS PAGE

Michael Carter, Jr.,  
Carter Farms

### OPPOSITE PAGE

Decarbonization Academy



- GSVS 4559: UVA in Greece: Odyssey in the Anthropocene (Summer 2023)
- GSVS 4559: UVA in Germany and Switzerland: Invest in a Sustainable Future (J-term 2024)
- GSVS 4810: UVA in Vietnam: An Ecologic-Economic Exploration (J-term 2024)

This year 43 students graduated with the Global Sustainability minor—bringing the total number of Sustainability minors since 2011 to 529.

### **ENVIRONMENTAL THOUGHT AND PRACTICE MAJOR**

This was a year of continued growth for the Environmental Thought & Practice (ETP) major, an interdisciplinary program focused on environmental sustainability, engaging students within a framework of the natural sciences, social sciences and humanities. The program grew to almost 100 ETP majors by the end of the spring semester and had 32 graduates this year. With support from the Jefferson Trust, ETP offered three courses co-taught by “Practitioners in Real Life,” including, Restoring Our Relationship with Nature (Carolyn Schuyler), Africulture: the African Roots of US Agriculture (Michael Carter, Jr.) and Market-Based Solutions to Environmental Problems (Russell Sturm).





# Grounds-Engaged Learning

## GOAL

Foster collaborations that enable mutually beneficial community- and Grounds-engaged research and learning.



## Experiential learning—connect coursework to on-Grounds learning opportunities

### MORVEN SUSTAINABILITY LAB

A new strategic plan is being developed for the Morven Sustainability Lab (MSL), guided by a new vision and mission. The strategic planning team, led by MSL faculty director Beth Meyer, engaged faculty, staff and community members through listening circles and site visits. Participants included UVA and community sustainability leaders, UVA Foundation staff, descendants of the UVA and Morven enslaved community, regenerative farmers and foresters, student health and experience representatives, food equity collaborators, and environmental, science and contemplative practice scholars. The team also had an initial consultation with the Chief and Assistant Chief of the Monacan Nation and members of their leadership team to introduce Morven (known to Thomas Jefferson as “Indian Camp”), and discuss potential sustainability research collaborations around climate adaptation, food sovereignty and regenerative land management practices. The MSL ten-year strategic plan will be complete in Fall 2024.

Two faculty members established land labs exploring nature-based infrastructure, plant genetics and climate adaptation. This year’s research and coursework included: the creation of a GIS database of cultural and natural resources; a collaboration with UVA Library’s

**THIS PAGE**  
Forest Patch team

**OPPOSITE PAGE**  
Student Sustainability  
Employees

Scholars Lab; a baseline analysis of Morven's nitrogen footprint by the Nitrogen Working Group; Will Rourk's Historic Preservation Practicum: 3D Cultural Informatics focused on multi-year documentation of Morven's historic core; Paul Freedman's Politics of Food; Ethan Heil's Designing a Carbon Neutral Future seminar; and Todd Scanlon's Hydrological Field Methods and Data Analysis. The Morven Kitchen Garden held weekly volunteer days with four Student Days held in the spring that allowed participants to explore, experience, and enjoy Morven's unique landscape.



## ENGINEERING FOUNDATIONS CLASS

The Office for Sustainability collaborated with the year-long Engineering Foundations class to address ongoing sustainability challenges on Grounds. More than 60 students produced innovative solutions to improve watering efficiency in the student garden, reduced contamination in outdoor recycling bins, and incentivized students to choose sustainable transportation options.

## DECARBONIZATION ACADEMY

In 2023 the UVA Decarbonization Academy kicked off its second year with a multidisciplinary cohort of 14 student fellows and 10 faculty and staff mentors, under the guidance of faculty director, Lisa Colosi Peterson. This paid, immersive summer experience enabled participants to directly address sustainability on Grounds through a range of projects. Professor Tim Beatley's forest patches team built on their previous year's success to expand UVA's growing list of dense, Miyawaki-style forest patches. Additional projects evaluated the embodied carbon impact of UVA's building stock, analyzed the potential for on-Grounds biogas production, researched historical phenology at Morven Sustainability Lab, expanded the University's nitrogen footprint analysis, and investigated the use of smart sensors and controls in laboratory spaces.



# Awards and Recognition

We are pleased to have earned the following recognitions and awards this academic year.

## UVA SUSTAINABILITY

- UVA earned a **STARS Gold rating** in recognition of sustainability achievements from the Association for the Advancement of Sustainability in Higher Education (AASHE). STARS (the Sustainability Tracking, Assessment, & Rating System) measures and encourages sustainability in all aspects of higher education, including the five categories of academics, engagement, operations, planning/administration, and innovation.
- In 2024, for the first time, UVA was included in Princeton Review's **Top 50 Green Colleges**, at #49.

## UVA OPERATIONS

- UVA is ranked #28 in the **U.S. EPA Top Green Power Colleges & Universities** list based on the percentage of renewable energy in our electricity portfolio.
- UVA earned a **2024 U.S. Department of Energy Better Practice Award** for its innovative and comprehensive Green Building Standards.
- UVA was recognized as a **Better Buildings Challenge Goal Achiever** by the U.S. Department of Energy.
- UVA's John Paul Jones Arena was named a **2024 Virginia Green Travel "Innovative Green Project"** for their Green Games waste reduction efforts.
- The Virginia chapter of the U.S. Green Building Council awarded the Chemistry Renovation project a **2023 Community Leadership "Rise to the Challenge" Award**.

The Governor's  
Environmental  
Excellence Honorable  
Mention award



### UVA FLEET

- UVA's Facilities Management Fleet Management team earned a **Governor's Environmental Excellence Award Honorable Mention** for its Safe and Sustainable Driver Training Program.
- The National Association of Fleet Administrators (NAFA) ranked UVA's fleet **#78 in its Green Fleet Awards 2023**.



### UVA HEALTH UNIVERSITY MEDICAL CENTER

- UVA Health University Medical Center's Battle Building earned a **Greening the OR Recognition Award** from Practice Greenhealth for its operating room waste reduction efforts.
- UVA Health also received a **Sustainability Solutions Environmental Excellence Award** (Platinum level) from the medical technology company Stryker for the collection and purchasing of re-processed single-use devices.
- UVA School of Medicine students collected data and completed submissions to the **Planetary Health Report Card**, which awards scores from A+ to F and identifies recommendations for expanding learning and research on issues such as heat illness, asthma and environmental health inequity. UVA improved to a B- overall, including an A- for Interdisciplinary Research.

### SUSTAINABILITY LEADERSHIP AWARDS

Each year the UVA Sustainability Leadership Award honors students, faculty, staff and community members who have shown an outstanding commitment to advancing sustainability practices and solutions in support of UVA's 2030 Sustainability Plan, and who exemplify being a good neighbor locally and globally. This year's winners:

**Students:** Garreth Bartholomew, Leah Germain, The Graduate Biomedical Engineering Society (GBMES), Madeline Morphis, London Tuma and Olivia Vargo

**Faculty and Staff Members:** Rebecca Duff, Michael Duffy, Linda Hanson, Ryan McCarthy and Lisa Colosi Peterson

**Community Groups:** Community Climate Collaborative (C3) and Loaves & Fishes Food Pantry

Better Building  
Challenge partners

# Looking Back at a Decade of Progress

**In fall 2023, the Office for Sustainability turned ten. We asked Andrea Ruedy Trimble, Director of UVA's Office for Sustainability, to reflect on plans, progress, and the work ahead.**

**Bring us back to 2013, when you left Harvard and started at UVA. What brought you to UVA and what was the state of sustainability in higher education at that time?**

In 2013, I had been working in sustainability in higher education for almost eight years, starting in Harvard's Office for Sustainability when they were the Harvard Green Campus Initiative. At the time—2006—sustainability offices at colleges and universities were just emerging, and ideas around reducing a university's own environmental footprint were fairly new. In the mid-2000s, sustainable building processes that are common today, such as energy modeling and setting energy targets lower than code, were not yet widespread goals at universities. Now sustainability offices are prevalent across the United States and are making incredible progress in highly collaborative ways. It has been amazing to see how much the field of sustainability in higher education has shifted in a relatively short period of time, with dedicated sustainability staff, sustainability plans, ambitious goals and significant institutional support.

**UVA published its first sustainability plan (2016-2020) in 2015 and its second sustainability plan (2020-2030) in 2030. How did those plans come to fruition and what has changed?**

Much of the work involved in strategic planning over the past ten years has been enabled by the University Committee on Sustainability, with facilitation support by the Office for Sustainability to convene task forces, working groups, and opportunities for feedback. The first plan and second plans use an Engage, Steward, Discover framework—to leverage the role that higher education has in sustainability. We want to engage people across Grounds





to raise awareness and inspire action; we aim to reduce the university's environmental impact and be excellent stewards of our resources; and we want to incorporate sustainability into curriculum, and foster sustainability-focused research. The first plan was about ramping up our efforts across many different areas. The second plan is about increasing our impact—adding goals for accountability, carbon neutrality and shifting to be fossil fuel-free.

**With over 550 buildings and over 16 million square feet, how do you begin to tackle the bold goal of carbon neutral by 2030 and fossil-fuel free by 2050?**

Our approach to carbon emissions reductions prioritizes plant and building optimization and efficiency as the most direct and cost-effective approach. This includes implementing energy supply recommendations identified in UVA's strategic thermal energy study and expansion of UVA's Building Efficiency Program—including the Sustainable Labs and Sustainable Clinics programs. Renewable energy is another important approach, and includes both on-Grounds photovoltaics and utility-scale solar.

**What has been a highlight from the past decade?**

It's important and exciting to work with others to scale impact. Seeing the City and County set carbon neutrality goals and being able to work with their sustainability staff through Climate Action Together and Resilient Together is a highlight, and for similar reasons, being part of Ivy Plus Sustainability Collaborative, where we work with other university sustainability offices across

Andrea Ruedy  
Trimble, Director  
of UVA's Office for  
Sustainability

the country. Additionally, the Office for Sustainability team has expanded to include incredibly talented and hardworking staff members with a wide range of subject matter expertise across topic areas and approaches—outreach and engagement, communications, engineering, and strategic planning.

**What is the biggest challenge going forward?**

The scale of the issues and the timeframe in which we must solve them feels like the biggest challenge. At UVA, the 2050 fossil fuel-free goal will require significant and fundamental shifts in how we approach our energy supply, and even our 2030 waste goal requires shifts in mindsets on purchasing and disposal—to minimize the generation of waste and to be thoughtful about how we dispose of waste.

**The Office for Sustainability has really grown its student engagement—working with hundreds of students each year, whether they are student employees, volunteers, or attending the Sustainability Leaders class. What are you seeing and hearing from these young people?**

The sense of urgency to address climate change has significantly accelerated in recent years. We are seeing more and more students graduate from UVA and pursue careers in sustainability, across sectors and across the world, with some even working in university sustainability offices.

**What do you envision might be a highlight we'll be talking about ten years from now?**

I hope we will be at least three years past meeting our 2030 sustainability goals, with a third sustainability strategic plan underway, and significant process towards our fossil fuel-free by 2050 goal!







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