



## **Virginia Pollution Prevention Case Study University of Virginia**

### Organization Information

The University of Virginia (U.Va) is a public university located on 3,411 acres of land, primarily in Charlottesville, Virginia. U.Va offers 56 bachelor's degrees, 79 master's degrees, 5 educational specialist degrees, two first-professional degrees (law and medicine), and 54 doctoral degrees. U.Va is a community of approximately 25,000 undergraduate and graduate students and almost 13,000 faculty and staff. The main campus includes over 525 buildings and major facilities, 39 of which are LEED (Leadership in Energy and Environmental Design) certified. As stated in the school's Sustainability Statement, "Sustainability at the University of Virginia calls for collaboration and ingenuity to promote the well-being of the community, solve local and global challenges through scholarship and practice, educate ethical leaders and steward this special place." U. Va faculty, staff, and students are all working toward this common goal and have implemented numerous outreach efforts to target specific programs as well as promoting sustainability at U. Va as a whole.

### Environmental Challenges and Opportunities

Outreach is an ongoing challenge and success for the University with a population that is constantly changing from year to year. Because of the large number of students, faculty, and staff, communication of the sustainability programs needs to be tailored to the various groups, and it cannot be a one-size-fits-all approach. The University is able to coordinate these various forms of outreach through the Office for Sustainability. This Office supports university-wide collaborative governance, leadership, and implementation of sustainability by partnering with student, faculty, administrators, and staff to develop a culture of stewardship that aligns with the educational, research, health care, and public service mission of the University. With each new school year comes new challenges and opportunities. U.Va makes the most of these opportunities by constantly evolving their outreach efforts and utilizing the wealth of ideas that come from each new class of students.

In August 2013, U.Va leaders and sustainability champions from the faculty, staff, and students across the University attended an all-day retreat to develop an overarching vision for sustainability at the University. After the retreat, the Outreach Subcommittee and post-retreat working group crafted the U.Va Sustainability Statement, which was approved in June 2014. This statement provides guiding principles for U.Va's path toward sustainability and has been communicated to the U.Va community as a cornerstone of the University's commitment to sustainable progress.

### Outreach for the Sustainability Programs

U.Va's sustainability outreach program, events, and campaigns, expand sustainability literacy and awareness across the University. The University translates that increased awareness into action along with a strong network of sustainability committees that empowers individuals across campus to enact change. Outreach on sustainability efforts is conducted through subcommittees, events, signage around Grounds and in dorms, informational sessions with Resident Assistants, websites, and community engagement. It requires a lot of work to keep a University as large as

U.Va informed of the environmental programs and opportunities available, but through targeted and creative outreach, the University has been able to see success with student and staff awareness.

### **Communicating In Person**

Students have developed numerous ways to connect and collaborate on sustainability at U.Va. Monthly SustainaForums were organized by the Student Council Sustainability Committee to bring together leaders from sustainability-focused student organizations to promote collaboration and build awareness on each group's initiatives. Sustainability-related events were held at least monthly to engage students from all over campus. Two of the major sustainability events held last year were U.Va Sustainability Days and Earth Week.

For in-person outreach, tabling events, interactive displays or activities, and giveaways attract the largest audience. In the spring, the Water Working Group hosts their annual World Water Day Fair, which has recently expanded into a weeklong celebration. The week's activities included a lecture on water sustainability, the annual World Water Day Expo, and a stream cleanup. The events also included a collaboration with U.Va Recycling to collect 1500 recycled water bottles to build a pyramid to visually represent the number of water bottles consumed in the United States per second. Additionally, unique events such as Game Day Challenge and Recyclemania not only helped U.Va increase their overall diversion rates, but simultaneously raised awareness and encouraged student participation in these sustainability efforts. As part of the Game Day Challenge, student volunteers informed patrons on proper disposal methods and further sorted organics and recyclables to divert them from the waste stream.

The Energy Team hosted The Dorm Energy Race, a month long competition between the first year dorm areas to see who could reduce their energy usage the most. This competition helped reduce energy usage in these areas while also opening the dialog about energy conservation with new students. In other efforts to raise energy awareness, the Water and Energy Team, along with students and staff in Energy and Utilities, created a short video in 2014 about the unique attributes and innovations of the district energy system at U.Va presented as a parody of the song "I Love It" by Icona Pop. The video placed second in the International District Energy Association's Third Annual Campus Energy System Video Contest, which challenges students to create unique videos explaining their campus energy distribution systems. In 2015, the U.Va. student team placed first in the competition.

Sustainability Advocates (SA) is a program that utilizes a peer to peer student network to instill knowledge, empower students, and create awareness of the impact of decisions. Fifty student volunteers are selected each year to share sustainability information within their residence halls. The Advocates engage their peers in creating a sustainable community with increased knowledge of recycling, energy and water conservation practices. These students also collect concerns and questions regarding recycling and conservation issues from their fellow residents and bring them to the bi-weekly SA meetings.

Not all sustainability programs at U.Va are geared towards the students though. The Green Workplace Program seeks to engage U.Va employees in actions that conserve energy, save money, and advance sustainability. The program includes 60 actions that workplaces can

implement to be more sustainable. The credits for each action range between one and five points depending on the level of effort required to implement the activity. The Green Workplace program encourages friendly competition between workplaces. Participants in the program report their actions and can earn a Green Workplace certification based on the total number of credits they have achieved, 25 or more credits for Bronze, 50 or more credits for Silver, and 75 or more credits for Gold. The U.Va Sustainability website has a step-by-step guide for implementation to encourage workplaces to get certified.

Staff are also engaged in peer to peer programs in a variety of avenues. Sustainability Partners facilitates opportunities for staff who are curious about sustainability to get involved by attending events with guest speakers and encourages collaborative participation on a variety of topics. The mission of Sustainability Partners is to actively engage U.Va employees in cultivating a community that embraces sustainability practices by promoting initiatives that reduce energy and water use, minimize waste, promote community and enhance well-being.

### **Communicating through Advertisements**

The University has found several factors that are important for implementing successful projects, one being diverse and persistent advertising of events and campaigns. These advertisements have included posters, brochures, signage on local buses, and many more creative awareness materials.

The Storm Water Task Force at U.Va has focused on student outreach and education to promote student involvement in improving local streams by reducing the volume of stormwater that leaves the Grounds and improving the quality of water that does. The task force designed bus ads to educate U.Va students on the problems, targeting issues such as plastic cup and cigarette butt littering as well as proper paint disposal after student groups paint the “Beta Bridge,” a tradition on campus that in the past has left numerous cans of unused paint in the area. Beta Bridge has been painted almost daily since the 1960s by students and student groups to advertise various events or celebrate activities on grounds. A paint collection bin and a trash can installed at one end of the bridge allows students to share partially used paint cans or properly disposed of empty ones.

Other sustainability working groups on Grounds have also made the most of clever posters to go along with their campaigns. The “I Heart Tap” Poster Campaign encouraged use of reusable water bottles by highlighting the cost savings. The Water Working Group hung these posters at the locations of all existing bottle fill stations on Grounds. The Student Employee Recycling Team aimed to increase awareness of recyclable items that usually end up in the trash, like plastic utensils and coffee sleeves, with eye-catching “Unusual Suspects” signage that pictured these and other recyclable, but often forgotten, items. In addition to designing posters that people want to read, the various groups have also been creative with placement of their outreach materials. The Transportation Working Group placed bike hang tags on parked bikes to advertise Earth Week and the tags also featured a coupon with a 10% discount on a bike helmet at a local bike shop.

## **Communicating on the Internet**

The University's Sustainability website is an excellent resource for students, staff, and the community. The website highlights upcoming sustainability events, an ongoing sustainability pledge, links to information like the sustainability report, and numerous suggestions for how faculty, staff, and students can get involved. The website also has a Newsletter page, where the U.Va community can sign up to receive the SustainaNewsletter, which provides bi-weekly updates on local events, involvement opportunities, and sustainability tips.

In addition to the University's website, social media is an important part of sustainability outreach that students respond to. The Litterati Campaign is one example of this. Litterati is a movement that encourages students to find litter, take a photo of it and upload it to the social media application Instagram, with the hashtag "#litterati". By using geo-mapping, Litterati is able to highlight and call attention to problem areas of litter. To encourage U.Va student participation, a Litterati Contest was held which provided prizes to students who posted the most Litterati photos on Instagram in a set time frame. Students also engage the University community by communicating current sustainability efforts and events through campaigns on Facebook, Twitter, and Instagram.

The U.Va Green Guide is a comprehensive portal to the University's sustainability initiatives on the University's website. The Green Guide allows the user to search in a variety of categories including food, student activities, energy, transportation, recycling and more. The Green Guide was created by the Office of the Architect as a way to increase awareness about the current and ongoing sustainability initiatives.

## Evaluation of the Process

Sustainability programs at U.Va are accomplished through the dedication of hundreds of students, faculty, and staff from around the University that are committed to sustainability. Each year the University Committee on Sustainability issues a Sustainability Annual Report in order to provide a snapshot of sustainability progress over the previous academic year. The University has achieved impressive results from their programs and is able to communicate these successes through the Report. Water consumption has been reduced over 30% since the peak in 1999 and energy use per square foot has decreased by 4% since 2010, despite increases in both population and square footage. The University has also seen a 1% decrease in their greenhouse gas emissions from their 2009 baseline, indicating progress, despite the impact of University growth.

The University of Virginia was one of nine institutes of higher education in the country to be recognized as a U.S. Department of Education Green Ribbon School in 2015. This award provides national recognition for the University's achievement in environmental stewardship, wellness, and sustainability education. The University also achieved the Association for the Advancement of Sustainability in Higher Education (AASHE) STARS (Sustainability Tracking, Assessment, and Rating System) Gold rating. The program provides a method for universities to assess how effective their sustainability programs are compared to hundreds of other schools. STARS addresses 135 sustainability credits grouped into three categories: Education and Research; Operations; and Planning, Administration, and Engagement.

Through implementation of various outreach methods U.Va has found ways to strengthen their efforts from year to year. Many teams have realized that if they schedule their events and initiatives around other similarly themed events on Grounds, along with co-sponsoring events with other green-friendly organizations and departments, they will be able to target a wider audience. In some cases, as with waste diversion from dining operations, the working groups have found that outreach efforts would be more effective if they were accompanied and supported by policies, expanded infrastructure, and standardized practices. When implementing sustainability programs at a University, academic year and other considerations are important factors that come with working with students. The staff and faculty at U.Va help provide continuity in the programs from year to year. There are new students to educate on the University's sustainability programs every year, and the programs evolve over the years as well, so there is always outreach to be done.

#### Continual Improvement of the Program

U.Va is currently launching the pilot of the "Teach Residents Everything Environmental" (TREE) Program in the University's old dorms. This program, the brainchild of a 2014 graduate and led by the student organization Green Grounds, aims to educate incoming first-year students on sustainability and environmental matters as soon as they get to campus. The program is geared towards first year students because they are more receptive to this type of program than upperclassmen who are more set in their habits. The program consists of a presentation given by the Resident Advisor, informational fliers, and physical tools given to students to decrease their resource consumption. Physical tools to reduce resource consumption include reusable travel mugs and shower timers. Although the TREE Program is currently only being launched in the McCormick Road Residences, Green Grounds hopes that the program will be expanded in the future to include all first-year residences.

The network of committees, subcommittees, working groups, clubs, and activities focused around sustainability keep driving U.Va forward. New goals are set each year to align with student interests and to build on progress achieved during the previous year. These goals are set as a joint effort between students, faculty, and staff which ensures that a wide variety of viewpoints are represented. The University values input from the U.Va community, and is in the process of developing its first comprehensive Sustainability Plan with input from various task forces and students as well. The Plan will outline targeted actions for the University to pursue over the next 5 years to meet current and new sustainability goals. Content for the plan is being developed collaboratively via various task forces of faculty, staff, and students. Through this plan the university hopes to build upon current initiatives and accomplishments, but also significantly advance environmental stewardship goals, sustainability teaching and research initiatives, and overall engagement and awareness.