Pathways to Walking the Talk

In addition to practicing environmental stewardship while conducting facility operations, universities’ sustainability-related contributions occur via research, education, and engagement. This article provides environmental managers with examples of elements of three public universities’ approaches to environmental stewardship from the perspective of those who support and track sustainability university-wide. The questions and answers that follow were collaboratively developed by four campus sustainability professionals who participate in the Virginia Sustainability in Higher Education (VASHE) professional network.
What is the role of your campus sustainability office in reducing your university’s environmental footprint and assuring that the university models environmental stewardship?

Jennifer deHart: Unlike institutions with a dedicated sustainability office, environmental stewardship activities at VMI are distributed across the institution and coordinated by a Physical Plant officer. The Sustainability Coordinator ensures compliance with environmental regulations and assists campus operations—from dining services to uniforms to the motor pool—in identifying and adopting best practices for resource efficiency. The coordinator supervises summer sustainability interns and a crew of cadet recyclers. The coordinator serves as a resource, maintains a central clearinghouse of data, and finds ways to bring visibility to VMI’s efforts.

Emily Schosid: Virginia Tech’s Office of Energy and Sustainability (OES) is housed within the University Planning department (which, in turn, is part of Facilities), and has three full-time staff members and a part-time Graduate Assistant leading its efforts. OES works very closely with the Dining Services Sustainability Coordinator (who focuses on food, composting, and other waste minimization issues) and the Alternative Transportation Office (who focus on improving the bike, bus, and walk options on campus). OES’s focus, then, is to cover the education, outreach, and administration of topics not covered by those aforementioned partners, as well as to serve as the coordinator between the myriad sustainability efforts taken on by students, faculty, and other staff on campus to ensure those efforts are not in conflict with one another.

Andrea Trimble: U.Va.’s Office for Sustainability, housed with Facilities Management, includes 10 full-time staff, 15 part-time students, and 50 student volunteers focused on buildings, operations, waste diversion, communications, and engagement. The office supports university-wide collaborative implementation of sustainability across the grounds by partnering with students, faculty, administrators, and staff to infuse and develop a culture of environmental, economic, and social stewardship in alignment with the educational, research, health care, and public service mission of the university. Programs include Delta Force (existing building

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Q: How does your institution prioritize its environmental stewardship activities?

deHart: VMI focuses primarily on those activities that ensure the safety and security of our immediate environment: human, financial, and ecological. Efforts that reduce our environmental footprint must also reduce costs and improve our operational efficiency, whether in terms of extended equipment life or a healthier workplace. Our waste management, firing range lead safety, and preventive maintenance programs are examples of such triple-benefit efforts. If VMI pursues a broader commitment to stewardship in the future, I know we will seek advice from our colleagues in the VASHE network.

Schosid: Virginia Tech’s motto is Ut Prosim, “That I may serve.” Everything we do at Virginia Tech tries to follow that lead. In sustainability, our guiding document is the Climate Action Commitment, which was approved by the Board of Visitors in 2009. This document sets 14 goals for, among other things, greenhouse gas emissions, water use, energy efficiency, waste diversion, and campus engagement. Whenever we review new projects—whether they are proposed by students, faculty, staff, or our own office—we make sure it helps us to advance one or more of our 14 goals.

Trimble: U.Va.’s Board of Visitors has endorsed a sustainability commitment, which includes quantitative greenhouse gas and nitrogen goals (25% below year 2009 amounts by the year 2025), as well as a commitment to address other areas such as natural resource protection and waste reduction, while promoting sustainability education and engagement. In alignment with the commitment, we evaluate initiatives based on the benefit, cost, and availability of funding. We seek to make decisions based on the total cost of ownership (not just the initial price), the anticipated environmental impact reductions, as well as the educational value.

Q: What metrics does your institution use to assess progress in environmental stewardship in terms of impact on the environment, as well as stakeholder behavior change and environmental literacy?

deHart: VMI tracks all energy- and waste-related data, uses the data to identify trends over time or by location, and prioritizes potential steps needed to curb consumption. When converted to dollars or some tangible equivalent, data can help make a problem or a success story relevant to people. When possible, we monitor behavior change by proxy metrics, such as by counting the number of computers left on before and after a computer shut-down campaign, or the number of recycling bin requests received after orientation sessions.

Schosid: Every year, we present an annual report to Virginia Tech’s Board of Visitors. This report shows our progress over time on a number of different environmental metrics: carbon dioxide emissions,
energy use per capita and per square foot, recycling- and diversion-rates, water usage, the size of our internship program, and various highlights (awards and honors, special events, and new achievements). During events, we track engagement with our social media channels and approximate attendees, as well as specifics about how much compost and recycling was collected (for larger, zero-waste events). Finally, we track an incredibly robust set of metrics using the Association for the Advancement of Sustainability in Higher Education’s (AASHE) Sustainability Tracking, Assessment and Rating (STARS) program, and work to keep this database up to date in between submission years.

**Trimble:** To report on progress toward U.Va’s Board of Visitors’ sustainability commitments, we track greenhouse gas, as well as reactive nitrogen, emissions. We also report on building energy use intensity as part of a Better Buildings Challenge energy reduction goal. All buildings are metered, allowing us to track each energy commodities, as well as water consumption. We use these data to analyze progress in various ways, such as reductions per square foot or per capita. We also use the AASHE STARS program to track metrics and progress across a wide range of topics, including curriculum, research, operations, engagement, and governance.

**Q:** College graduates’ choices will affect the environment. How does your institution connect environmental stewardship with the primary mission of educating students?

**deHart:** A strong Civil and Environmental Engineering program and a concentration in ecological studies are among the existing programs that connect stewardship with academic study at VMI. However, there are many more exciting opportunities to infuse environmental topics into academics. This past year, I collaborated with faculty members...
from four departments to pilot two “Living Laboratory” projects: one group of students conducted a feasibility study of on-site food waste composting, while another teamed up with an energy company to analyze smart lighting controls in classrooms. Students are aware of the challenges facing our world, and many expressed a desire to have more applied, real-world experiences in college.

**Schosid:** Virginia Tech has a wide variety of sustainability-focused majors and minors. The Sustainability Minor offered by the College of Natural Resources and the Environment is the most popular minor on campus, followed fairly closely by the Green Engineering minor at the College of Engineering. Additionally, Sustainability is one of four key research focuses designated by the Vice President for Research and Innovation.

**Trimble:** Each semester, approximately one hundred U.Va. students in the Global Sustainability course undertake a “think global/act local” project, in which they partner with on-grounds or community members in developing a meaningful sustainability project. Several of these student projects have transitioned into institutionalized programs on the grounds, such U.Va. dining’s back-of-house composting program. There are dozens of other courses, as well as a Global Environments + Sustainability major, all of which challenge students to think critically to solve local and global challenges.

**Q: How does your institution contribute to environmental stewardship in the greater community?**

**deHart:** Being a small college in a rural area, VMI has an intimate relationship with the community. I am personally a member of the local conservation council and a county waste reduction task force. VMI manages a nature trail that is a critical resource for recreation and watershed conservation. Three current capital construction projects have all utilized local labor and materials to minimize our footprint.

**Schosid:** At the end of every school year, Virginia Tech students are encouraged to sign a sustainability pledge, which states that they will try to make environmentally responsible decisions after graduating and to think critically about the impacts those decisions will have on the earth. Students have spent four years on a campus where we have been trying to create a culture of sustainability, and it is our hope that these students will carry these values away from campus and into the wider world where they will continue to serve.

**Trimble:** U.Va. is currently partnering with the City of Charlottesville in the city’s pursuit of the Georgetown Energy Prize. This includes supporting educational efforts, such as an Energize UVA program in alignment with Energize Charlottesville, to raise energy efficiency and conservation awareness. We have also been expanding our student peer-to-peer awareness program to off-grounds housing by working with the city and multi-family apartment property owners.

**Q: What is the biggest challenge faced by campus sustainability offices?**

**deHart:** A big challenge is balancing the interests of the institution’s many stakeholders who often
hold diverse expectations of the sustainability officer’s function. Some initiatives may not have a strictly business case, for example, so our communication and coalition-building tactics change to suit the audience. And, of course, this multi-pronged approach takes time to develop. We are practitioners of patience.

Schosid: One of the biggest challenges we face in higher education is the incredibly quick turnover among the students—the largest portion of our audience. Every year, over 6,000 new students arrive with virtually no knowledge of the sustainability programming on campus. This means that we have to re-train and re-teach from square one every year, which can sometimes feel as though we’re stagnating the programs and the overall sustainability conversation on campus. However, this challenge is also sometimes a great strength: we are able to learn from previous years to become even more effective at communicating our messages. Within those 6,000 new faces are dozens of highly motivated young people who want to make a difference and who have new and exciting ideas for how to do that. Our programs never seem to lack energy because we are re-invigorated every August.

Trimble: One of the biggest differences I see, but also what makes higher education so interesting, is the horizontal rather than top-down decision-making. Collaboration and engagement with a wide range of stakeholders is incredibly valuable and fulfilling, and leads to excellent results, but at times the pace of change may feel slow. Though programs may be implemented at a slower pace, the long-term view that universities hold means that decisions are carefully vetted and opinions and expertise from many individuals are incorporated. It also allows for a lot of professional growth and education for the individuals involved in initiating a change—from meeting facilitation and building buy-in, to project management and implementation.