



*University of Richmond*

# Sustainability Report



# From the President's Desk

In the six years since we completed our 2010 Climate Action Plan, the University of Richmond has made sustainability part of its operational, educational, and administrative practice. Innovations in energy efficiency and green design have reduced greenhouse gas emissions by 17 percent below 2008 levels, despite the addition of new buildings on campus. Our new 205 kW solar array positions the University of Richmond as a leader in on-campus use of solar energy in Virginia, moves us closer to our 2050 goal of carbon neutrality, and provides outstanding on-site research and education opportunities.

It thrills me to know that classes have already begun to utilize the solar array as a living laboratory for sustainability. Increasingly, our students take courses and engage in research projects that address sustainability challenges at UR and beyond, providing real-world applications of course content. In 2015, more than half of the departments on campus taught at least one sustainability course, and faculty from all five schools conducted research on sustainability related topics. Though our students' time with us is short, the impact of a University of Richmond education lasts a lifetime. We must not miss the opportunity to provide educational experiences that lend themselves to the creation of a more just, humane, and sustainable society.

Engagement in sustainability outside of the classroom is also on the rise. The past year saw the establishment of a peer-to-peer student sustainability education group and the creation of a Food Recovery Network chapter. A new Green Room Program encouraging environmentally friendly living certified more than 100 rooms in its first semester of activity. Interest groups comprising faculty, staff, and students formed to address the health of Westhampton Lake, increase sustainable transportation, and examine our food system.

The faculty-led Environmental Awareness Group hosted a well attended forum on the future of sustainability education, the REMAP Faculty Learning Community explored how a University of Richmond education could be used to combat

climate change, and the Power Dialog brought students from a dozen Virginia colleges and universities to campus to discuss the Clean Power Plan. Stakeholders from across the University are embracing efforts on our campus to address to global sustainability challenges.

The 2016 University of Richmond Sustainability Report represents where we are now, recognizes significant accomplishments, and provides a launching point for future endeavors. We all have a role to play in the continued stewardship of this great place. Thank you to all who have contributed to this important work and to those who will do so in the coming years.

Sincerely,  
Ronald A. Crutcher, President



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# Acknowledgments

One of the greatest gifts I received when coming on board at the University of Richmond was the looming deadline of the Sustainability Tracking, Assessment & Rating System (STARS) report, a comprehensive evaluation of the University's sustainability efforts. Being new to the University meant having to reach out to dozens of people across campus to gather the data needed to complete STARS.

This effort taught me two important lessons: 1. We are doing a great deal of important and impressive work. As I collected pieces of information from various departments, it became clear that we have effective sustainability champions throughout the University who dedicate considerable resources to steward our campus and community. 2. University of Richmond staff, faculty, and students are willing to go out of their way to support a colleague. Without fail, requests for information were met with kindness and delivered to a high standard. A sense of collegiality and shared purpose marked the entire experience. I could not have planned for a better introduction to this great school.

The result of the STARS team's efforts is the most wide-ranging and thorough collection of sustainability information the University of Richmond has ever completed. This document presents a summary of the data we collected. It serves the dual role of providing information on the considerable sustainability efforts underway and establishes a benchmark for our efforts as we move forward. There is much to be celebrated, and there is much to be done.

As you read the report, you may come up with your own ideas about how we can approach sustainability. We encourage you to share your thoughts and any feedback you may have on this report at [sustainability@richmond.edu](mailto:sustainability@richmond.edu). Together we can help transform the University into an example of sustainability at its finest.

Gratefully yours,  
Rob Andrejewski  
Director of Sustainability



Thank you to everyone who contributed to this report, especially the following individuals:

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# About the Report

The University of Richmond Sustainability Report measures our sustainability performance across a wide array of University functions and establishes a strong foundation from which to build.

The data and scoring methodology presented in this report are drawn from the Sustainability Tracking, Assessment, and Rating System (STARS), an



enterprise-wide evaluation of sustainability on campus developed by the Association for Advancement of Sustainability in Higher Education (AASHE). STARS is a voluntary self-reporting assessment that provides a common standard of measurement for sustainability

in higher education. University of Richmond earned a Silver STARS rating in both 2013 and 2016. Data for this report is supported by information gathered for the annual Climate Action Plan Progress Report.

STARS measures sustainability performance and the progress we have made toward our sustainability goals in four key areas: academics, engagement, operations, and planning & administration. In the following pages, you will find the results of the STARS report, as well as narratives on University progress and examples of sustainability in action.

Recommendations in each area are based on STARS criteria.

### **What is Sustainability?**

Sustainability means creating environmental, social, and economic conditions that foster the health and well-being of people and the natural world in this generation and generations to come. Through the Climate Action Plan and other commitments, the University of Richmond has pledged to adopt responsible policies and utilize our resources in a manner that sustains life, improves the human condition, and acknowledges limits to growth.

Throughout the report, these symbols are used to show our progress in each area:

 **Out in Front**

 **In the Pack**

 **Lagging Behind**

In the pack ratings put us in the same category as other STARS silver-rated schools.



# Categories & Criteria

## **Academics & Research**

Academic courses, learning outcomes, undergraduate and graduate programs, academic research, support for research, and immersive experience

## **Community & Campus Engagement**

Student life, peer education programs, outreach efforts, staff development, community partnerships, inter-campus collaborations, continuing education, and community service

## **Operations**

Air & climate, energy, buildings, dining services, purchasing, grounds, transportation, waste, and water

## **Planning & Administration**

Sustainability coordination and planning, diversity and equity, affordability and access, wellness programs, workplace health and safety, and employee compensation



Evaluation of University of Richmond's performance in Academics is based on sustainability courses offered, degree programs with sustainability outcomes, support for faculty and professional development, and areas of research that address sustainability.

Since signing the Climate Action Plan in 2010, the University has offered sustainability courses in 23 departments (16 in 2015 alone), ranging from entry-level classes to advanced capstone seminars, representing all five schools.

In addition to standalone courses, the University offers undergraduate degrees in Environmental Studies and Geography & the Environment, both of which have learning outcomes related to climate change and sustainability.

Increasingly, UR offers hands-on learning experiences that bring classroom content to life. Multiple "living lab" projects - which involve faculty, staff, and students in a collaborative venture that helps solve a problem, answer a question, or meet a University sustainability goal - marked 2015. Faculty-supported student research on electronic waste management, audits on recycling rates, and analysis of our campus food system all led to projects that impacted campus practices.

Faculty development is a critical component to student education in sustainability. The River City Project supports faculty efforts to incorporate sustainability into classes through workshops and training in pedagogy and curriculum development. Likewise, the Climate Change Faculty Learning Community explores the power of liberal arts education to combat climate change.

**Academic Courses**  
5.22 / 14

We offer 46 courses with a sustainability focus, and 18 sustainability-related courses.



**Learning Outcomes**  
.33 / 8

In 2015, 31 students graduated from a program with sustainability learning outcomes.



**Undergraduate Programs**  
3 / 3

Sustainability-focused degree programs include Geography and Environmental Studies. Minors are also offered in these subjects.



**Immersive Experience**  
2 / 2

Study Abroad, the SEEDS Project, Earth Lodge, Community-Based Learning courses, and the Local to Global Program provide immersive experience.



**Incentives for Developing Courses**  
2 / 2

The River City Project helps faculty integrate sustainability into their courses.



**Campus as a Living Laboratory**  
4 / 4

Courses in Geography, Art, Environmental Studies, Biology, and more use the campus to conduct research.



**Academic Research**  
11.33 / 12

46 faculty and staff are engaged in sustainability research from 20 different departments.



**Support for Research**  
3 / 4

Students can receive course credit and stipends for fellowships and research. Research symposiums and Faculty Learning Communities also encourage research.



**Access to Research**  
0 / 2

UR did not pursue this credit because we do not have a formal open access policy. However, the UR Scholarship Repository does support access to academic research.



**Sustainability Literacy Assessment**  
0 / 4

The University does not currently have a system in place to measure student knowledge of sustainability.



### ***Campus as a Living Laboratory***

Professor Finley-Brook's GEOG 210 worked with Facilities and the Office for Sustainability on waste diversion efforts. The class read Garbology and discussed key findings. Following a presentation from the Director of Sustainability, the class performed a waste audit alongside Custodial Services in the fall of 2015.

The class then researched six topics related to waste diversion and presented their solutions at the end of the semester. Their work was captured in a blog and proposed solutions were



presented to the new Director of Custodial and Environmental Services for potential implementation. One of the ideas, composting in Puryear Hall, was piloted the following semester to great success.



*Earth Lodge, an environmentally focused Living-Learning Community, spent time caring for and exploring the James River.*

## **Academic Recommendations**

- Guarantee sustainability course offerings in each of the five schools and increase the total number of sustainability courses offered. Though 16 out of 30 departments taught sustainability courses in 2015, this represented only 34 out of 769 courses offered.
- Increase the number of degree programs with sustainability learning outcomes. Only 31 students out of 755 graduates were in programs that had explicit learning outcomes related to sustainability.
- Incorporate sustainability into the general education curriculum. Require that all students graduate with some level of exposure to sustainability challenges and solutions.
- Continue to support faculty and student research in sustainability with incentives and policies that recognize cross-disciplinary work during promotion and tenure.
- Create a sustainability literacy assessment to measure student knowledge of sustainability. Conducting a pre-test and post-test of the assessment can help determine our ability to educate for a more just, humane, and sustainable society.
- Continue to support undergraduate programs related to sustainability, immersive educational experiences, and campus as a living laboratory projects that allow faculty and students to integrate coursework and research into campus operations.
- Adopt a formal policy to ensure that future scholarly articles by faculty, staff, as well as future theses, are deposited in a designated open access repository.



# Campus & Community Engagement 27.1 / 41

The engagement credits assess the University's performance in two realms, campus engagement and community engagement. Campus engagement recognizes Richmond's efforts to provide students with sustainability education experiences outside of the classroom. The University is credited for co-curricular initiatives that integrate sustainability into campus life, such as the Sustainability Advocates, and for programs that support sustainability training, development, and engagement of faculty and staff, like the Green Office Program.

The community engagement criteria evaluates the institution's performance in supporting sustainability in the community through public outreach, community partnerships, and service. Engaging with the local community and working to meet the needs and aspirations of people near and far are essential to solving sustainability challenges. Stakeholders across the University, including but not limited to the Bonner Center for Civic Engagement, ensure robust community partnerships and deep community engagement.



## Campus Engagement

15.38 / 20 

<b>Student Educators Program</b> 2.72 / 4	University of Richmond Sustainability Advocates (URSA) educate peers, coordinate events, and facilitate the Green Room Certification Program.	
<b>Student Orientation</b> 1.5 / 2	Incoming students receive sustainability information in welcome materials, and volunteers help students recycle move-in materials.	
<b>Student Life</b> 2 / 2	URSA, GreenUR, Greeks Going Green, the Richmond Environmental Law Society, Food Recovery Network, and the community garden involve students.	
<b>Outreach Materials &amp; Publications</b> 2 / 2	The Sustainability website, newsletter, social media, printed materials, and signage around campus tell UR's sustainability story.	
<b>Outreach Campaigns</b> 4 / 4	In 2015 the University participated in Campus Conservation Nationals, Recyclemania, and Kill the Cup, three nationwide campaigns.	
<b>Employee Educators Program</b> .16 / 3	A staff sustainability group has grown out of the Green Office Program, but there is opportunity for growth.	
<b>Employee Orientation</b> 1 / 1	All new faculty and staff receive information on sustainability at the University on their first day.	
<b>Staff Professional Development</b> 2 / 2	The Green Office Program encourages offices to complete specific environmentally responsible actions.	



*Richmond on Broad Cafe participates in the Green Office Program.*

## Campus Engagement Recommendations

- Increase the number of students served by formally trained and supported sustainability peer education programs.
- Ensure 100% of entering students have the opportunity to participate in orientation activities that prominently feature sustainability. Our current rate is 75%.
- Create consistent signage to highlight sustainable building, landscape, and dining features to bring the efforts of campus stewards forward.
- Include sustainability information in all University publications to foster sustainability learning and knowledge.
- Create a guide for green living in the residence halls. Establish a faculty/staff peer-to-peer sustainability education program with formal training, regular engagement, and institutional support.
- Update and expand sustainability information provided at new employee orientation, including the addition of a face-to-face educational component. Currently, employees receive a sustainability handout at new employee orientation.
- Increase the number of institutionally supported professional development and training opportunities in sustainability for faculty and staff. Ensure that the training is available to all staff.

### **URSA & the Green Room Program**

University of Richmond Sustainability Advocates (URSA) is a peer education program dedicated to promoting sustainability and environmentally responsible behavior in the campus community through engagement with fellow students.



Sustainability Advocates (SA's) educate themselves and their peers about sustainability issues. URSA's goal is to facilitate and institutionalize stewardship on

campus as a result of this increased understanding.

The Office for Sustainability developed a Green Room Certification Program that provides students with a framework for adopting sustainable living habits in the residence halls and apartments. SA's are responsible for motivating and encouraging people to enroll in the Green Residence Certification Program and certify their rooms.





# Community Engagement 11.7 / 21



## **Community Partnerships** 2 / 3

The University, led by the Center for Civic Engagement (CCE), partners with the James River Park System, Envision the James, Shalom Farms, Tricycle Gardens, and more.



## **Inter-Campus Collaboration** 2 / 2

In 2016, the University partnered with colleges and universities across the state for the Power Dialog. UR also shares best practices with other schools through the VASHE network.



## **Continuing Education** 2.4 / 5

There are six continuing education courses and three certification programs that address sustainability.



## **Community Service** 3.3 / 5

Students engage in community service each week through CCE partners, and the entire campus comes together for service projects on Martin Luther King Day.



## **Community Stakeholder Engagement** 2 / 2

The CCE has identified more than 50 community stakeholders and has adopted a full participation policy when working with them.



## **Participation in Public Policy** 0 / 2

The University did not pursue this credit



## **Trademark Licensing** 0 / 2

The University did not pursue this credit



*Students partner with organizations like Envision the James to learn about and care for the James River.*

## Community Engagement Recommendations

- Develop multi-year, transformative community partnerships in sustainability that catalyze community resilience, support social equity, foster economic prosperity, and promote ecological health.
- Increase the amount of inter-campus collaboration to encourage the growth of a statewide campus sustainability community.
- Advocate for national, state, and local policies that support sustainability.
- Increase opportunities for students, faculty, and staff to engage in sustainability-related civic engagement and community service. Ensure a mechanism to report rates of community service engagement.
- Ensure fair labor conditions for the production of University of Richmond trademark licensed apparel by working with a monitoring and verification organization, such as Worker Rights Consortium, Fair Labor Association, or the Designated Supplier's Program.



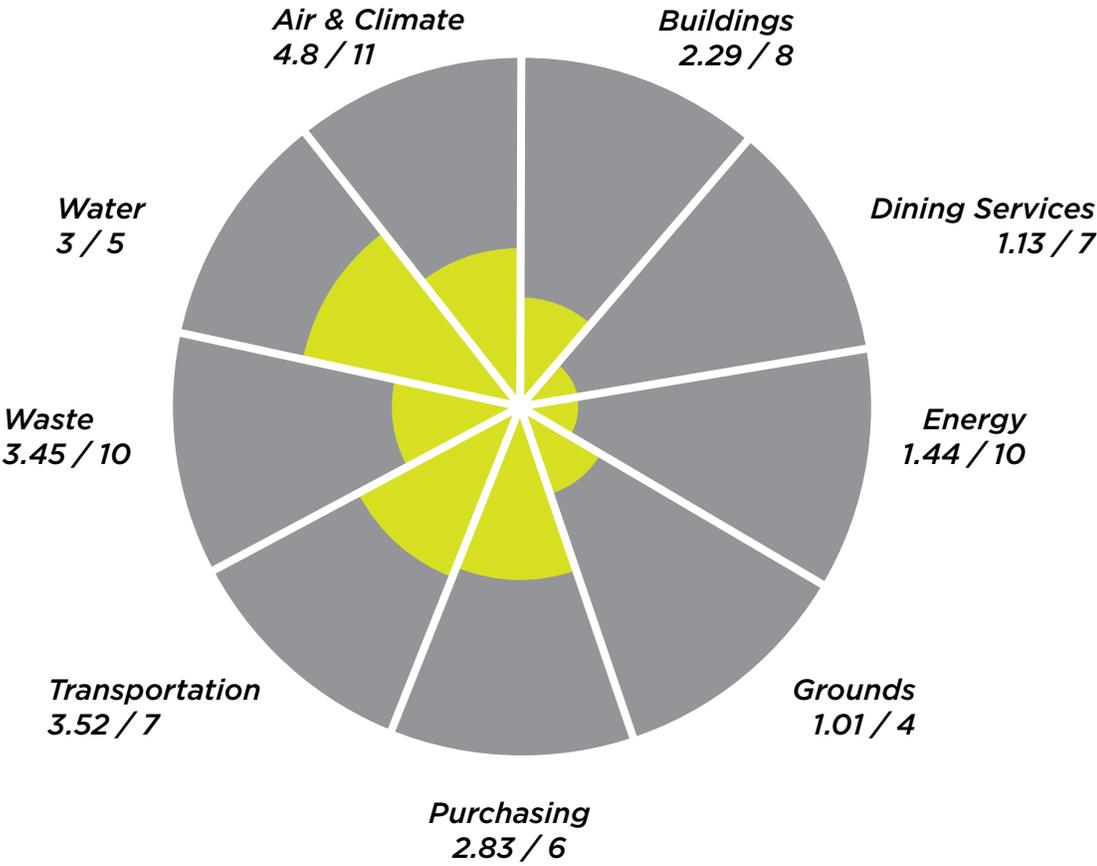
# Operations 23.5 / 68

The University of Richmond has moved toward an integrated view of sustainability that includes social, economic, cultural, political, and environmental factors. In the beginning, however, sustainability on campus referred to efforts to make our daily operations more environmentally sound. Efforts to incorporate clean technologies, prevent pollution, and steward the environment have been part of standard practice for decades. Facilities mandated energy efficient design in new construction long before we embraced LEED standards and student initiatives encouraged the University to adopt a recycling program back in 1991.

Facilities and Campus Services received more institutional support for green initiatives with the creation of the Office for Sustainability in 2009.

The subsequent 2010 Climate Action Plan and 2011 Campus Master Plan laid the groundwork for significant reductions in energy usage, construction of innovative and efficient buildings, primary use of native species for landscaping, and improvements in transportation options and availability. We have benefited tremendously from the foresight in these plans.

Despite our efforts in the realm of operations, there is a significant gap between our current performance and where we would like to be. The grey area in the image below indicates our room for improvement in the areas of Air & Climate, Buildings, Dining Services, Energy, Grounds, Purchasing, Transportation, Waste, and Water. The following pages lay out the evaluation criteria, share our progress, and point toward potential solutions as we move forward.

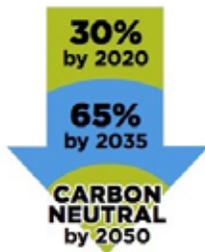




The University is recognized for measuring and reducing greenhouse gas (GHG) and air pollutant emissions. Under the University's 2010 Climate Action Plan, our ultimate goal is to achieve carbon neutrality by 2050, with an interim goal to reduce GHG emissions by 30% below 2008 rates by 2020. Our most recent annual GHG inventory revealed a 17% reduction in GHG emissions compared to 2008 levels, despite a 9.4% increase in building square footage from new construction over the same time period.

University of Richmond has been proactive in conserving energy and reducing our impact on air quality. In 2011, we completed the switch from burning coal to natural gas (a cleaner burning energy) at the central steam plant, leading to a substantial decrease in our GHG emissions. Replacing older steam absorption chillers with high efficiency chillers, installing LED lighting in renovated spaces, and purchasing certified green energy have helped us get more than halfway to our 2020 goal. Additionally, the University has adopted guidelines to improve outdoor air quality and minimize air pollution, including restrictions on diesel vehicle idling.

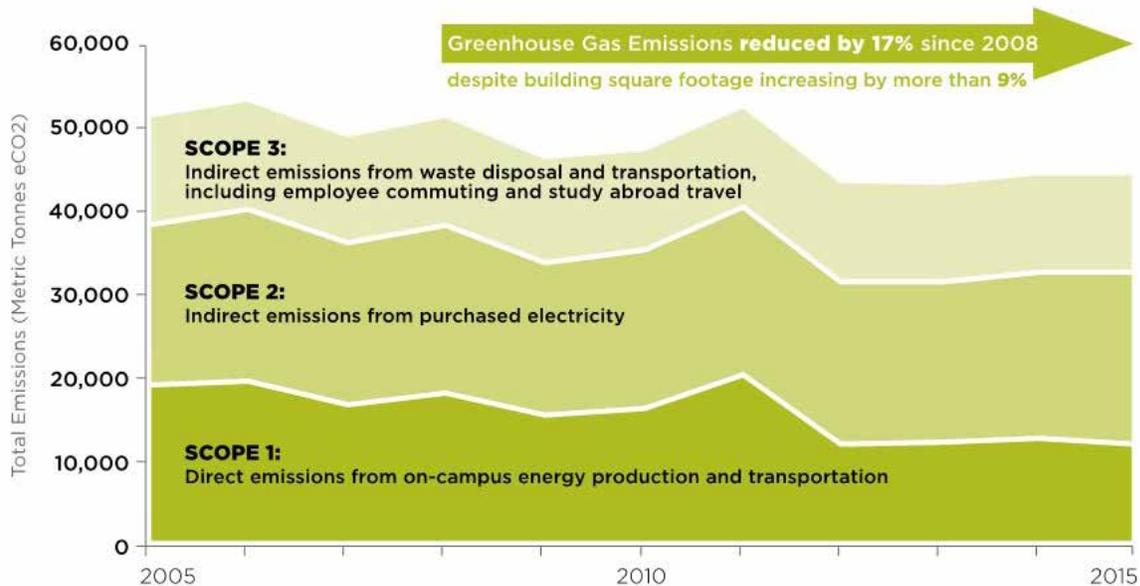
### Managing GHG reduction targets below 2008 levels



**Greenhouse Gas Emissions**  
3.8/10

**Outdoor Air Quality**  
1/1

## University Greenhouse Gas Emissions



## Air & Climate Recommendations

- ◆ Increase the percentage of energy derived from renewable sources.
- ◆ Implement and enforce policies that improve outdoor air quality and minimize air pollutant emissions from both stationary and mobile source.
- ◆ Raise the number of electric vehicles and alternative fuel vehicles in campus fleet to 50%.
- ◆ Explore carbon offsets and carbon sequestration. Research options for carbon storage from on-site composting.



# Buildings

2.29 / 8 

University of Richmond is recognized for its commitment to improving the sustainability performance of our buildings. All new buildings constructed on campus are required to achieve Leadership in Energy and Environmental Design (LEED) Silver status or better. LEED requirements influence the design, construction, and maintenance of buildings to provide a safe and healthy workspace while minimizing impact on land, air, and water.

In 2015, the Carole Weinstein International Center was awarded LEED Gold certification, the second building on campus to receive this commendation. There are now 10 LEED certified buildings on campus, with another three in various stages of review.

The biggest opportunity for improvement in this area is the creation of building operations and maintenance guidelines and policies that regulate ongoing usage and care for existing buildings. Unlike our LEED standard for new construction, we do not have green building standards for existing buildings.



*Carole Weinstein International Center  
LEED Gold*



*Weinstein Center for Recreation and Wellness  
LEED Gold*

**Building Operations & Maintenance**  
0/4 

**Building Design & Construction**  
2.13/3 

**Indoor Air Quality**  
.16/1 

## Building Recommendations

- ◆ Adopt a green building rating systems for existing buildings, such as LEED for Existing Buildings: O&M.
- ◆ Increase the amount of building square footage covered by the indoor air quality management program.
- ◆ Participate in the Living Building Challenge.
- ◆ Incorporate net-zero and regenerative building designs into RFPs.



# Energy

1.44 / 10 

This credit recognizes schools that reduce energy consumption, increase energy efficiency, and make the switch to sourcing renewable energy. The University has conducted lighting retrofits using LED bulbs in both residence halls and academic buildings, installed thermal windows, and upgraded power generation units to significantly reduce energy demand. Through these efforts, our building energy usage has decreased by 11% compared to our 2008 baseline levels; however, new construction of our biggest energy users — buildings— works against efforts to reduce overall energy consumption.

The University received some credit for using renewable energy practices, but this mainly referred to the 3.76 MW of green power certificates we purchase annually. The 749 panel, 205 kW, 22,000-square-foot photovoltaic solar array on the roof of the Weinstein Center for Recreation and Wellness was not completed until after the STARS evaluation period. The array is expected to generate 237,350 kWh of electricity each year — roughly equivalent to the energy needed to power 22 homes — which will offset 182 metric tons of carbon dioxide annually.

## Building Energy Consumption

1.30/6 

## Clean and Renewable Energy

.14/4 



## Energy Recommendations

- Conduct an energy audit to generate a list of energy-saving projects and measures.
- Create a campaign to reduce total building energy consumption, utilizing building level energy monitoring, energy dashboards, and building user education.
- Increase the amount of clean and renewable energy generated on-site and/or catalyzed off-site.



# Dining

1.13 / 7 

Evaluation of campus dining is based on the support of a sustainable food system. Industrial food production can have a negative impact on people, animals, and the environment all along the food supply chain. STARS recognizes institutions that use their purchasing power to support local economies, ensure safe and humane farming methods, and eliminate unsafe working conditions.

The University adopted the Real Food Criteria to track our sustainable purchases in Heilman Dining Center. 3.2% of our food and beverage expenditures met this standard.

Despite these findings, Dining Services has long been a leader in sustainability on campus. They source from an ever-expanding list of local vendors, including Twin Oak's Tofu, Blanchard's Coffee, Glenview Farms Cheese, and much more. Executive Chef Glen Pruden works with Profish to buy the freshest and most environmentally-sound seafood available each week. Heilman Dining staff post signage that indicates where the fish is from and, when possible, how it was caught or farmed.

Dining also hands out more than 1,000 "Lug A Mugs" to students on meal plans and provides reusable to-go containers to minimize dining-related waste.



**Food and Beverage Purchasing**  
.13/4



**Low Impact Dining**  
1/3



## Dining Recommendations

- ◆ Increase the percentage of local, community-based, and/or third party verified food and beverage expenditures.
- ◆ Opt for sustainably produced, third-party verified animal products over conventionally produced animal products whenever possible.
- ◆ Increase the amount and availability of complete-protein, plant-forward meals that minimize environmental impact at each meal.



## Purchasing

2.83 / 6 



The purchasing category awards points to Universities that choose environmentally and socially preferable products and services, including electronics, cleaning products, and office paper. Credit opportunities also exist for local and inclusive purchasing, life cycle cost analysis, and policies for business partners.

The University was recognized for our purchasing efforts in the areas of electronics, cleaning, and a commitment to diversity. 100% of the computer systems purchased over the last several years have met the EPEAT (a free and trusted environmental rating system for electronic products) Gold standard.

More than half of the cleaning products used on campus are Green Seal or Eco Logo certified due to a new green cleaning system used by Custodial & Environmental Services. We continue to place a strong emphasis on sourcing from women- and minority-owned enterprises. Areas for improvement include sourcing locally, increasing recycled-content and FSC-certified paper purchases, and employing life-cycle cost analyses as a matter of business.

**Electronics Purchasing**  
.75/1



**Cleaning Products Purchasing**  
.68/1



**Office Paper Purchasing**  
.25/1



**Inclusive and Local Purchasing**  
.4/1



**Life Cycle Cost Analysis**  
.5/1



**Guidelines for Business Partners**  
.25/1



## Purchasing Recommendations

- ◆ Formalize an institution-wide stated preference to purchase computers and/or other electronic products that are EPEAT registered in addition to the college's stated Energy Star preference.
- ◆ Implement measures to track purchases and minimize impacts of office paper.
- ◆ Develop and implement minimum environmental standards and practice guidelines for major business partners.



The University is evaluated on our support of a sustainable transportation system, including promotion of biking and walking, increasing alternative transportation, and moving away from gas-powered fleet vehicles.

Of the 90 vans and cars in our fleet, only 2 are gas-electric hybrids. This presents an opportunity to transition our fleet to electric or gas-electric vehicles. Cars owned by those commuting to the University are also a challenge. 94.5% of employees choose to ride in a single-occupancy vehicle.

On the positive side, the University offers great support for sustainable transportation. Recreation & Wellness manages a 50-bike fleet of Green Bikes, which are available for free on a first-come, first-serve basis. Covered bike parking, access to showers, and 33 bike racks spread across campus facilitate biking to and from campus. All full-time faculty, staff, and students may obtain a bus pass for ridership on the city of Richmond mass transit GRTC, paid for by the University of Richmond. The University also has free campus shuttles that leave from campus on consistent intervals throughout the day to transport faculty, staff and students to destinations throughout the city of Richmond. We partner with RideFinders to assist with carpooling, offer car sharing through the 5 Zipcars, and have three electric vehicle charging stations.



**Campus fleet**  
.18/1



**Student Commute Modal Split**  
1.35/2



**Employee Commute Modal Split**  
.11/2



**Support for Sustainable Transportation**  
1.88/2



## Transportation Recommendations

- ◆ Increase the number of electric and gas-electric hybrid fleet vehicles.
- ◆ Incentivize carpooling, public transportation, and alternative transportation to decrease single-occupancy vehicle commuting.
- ◆ Apply for the League of American Cyclists for Bicycle Friendly University status.
- ◆ Increase community connectivity and support for walking and biking to and from campus, including improvements to the Gambles Mill Corridor.
- ◆ Transition the green bike program to bike-share compatible with the City of Richmond.



This credit recognizes institutions that minimize the use of toxic chemicals, protect wildlife habitat, and conserve water and resources while maintaining campus. We achieved 1 of 2 points for landscape management for adopting an Integrated Pest Management Plan (IPM) that established a sustainable approach to managing pests. The IPM combines biological, cultural, physical and chemical tools in a way that reduces economic and environmental risks and protects the health and safety of students, faculty, staff, and visitors from pest and pesticide hazards. 263 of 322 campus acres are managed under the IPM.

Though we do not have an official sustainable landscape management plan, initiatives exist on campus to steward grounds. All new construction on campus avoids the use of irrigation systems by using native plants and less water-intensive plantings and any existing plant material and trees are moved to other locations on campus when possible. An Arboricultural Plan completed in November 2013 is used to assist in the management of 13 acres (144 trees) in the historic core of the campus. In 2015, Landscape Services and the Office of Sustainability held two tree planting events in which students, faculty and staff planted 66 native trees.

We received no points for biodiversity, which requires an assessment of endangered or vulnerable species and/or environmentally sensitive areas on University land.

**Landscape Management**  
1.01/2 

**Biodiversity**  
0/2 

## Grounds Recommendations

- ◆ Develop and implement a Sustainable Landscape Management Plan.
- ◆ Certify land under the Sustainable SITES Initiative.
- ◆ Manage University-owned lands for carbon sequestration.
- ◆ Conduct an assessment to identify endangered and vulnerable species and/or environmentally sensitive areas on University land.



# Waste

3.45 / 10

Reducing, reusing, recycling, composting, and hazardous waste management are considered in this category. In 2015, the University recycled 363 tons, composted 21 tons, and landfilled 1519 tons of material. An additional 15 tons were reused or resold through our furniture reuse, Office Supply Exchange, and Big Yard Sale programs. Our municipal solid waste diversion rate was 21.7%, which is much lower than the national average of 34%. Compared to our baseline year of 2005, we are actually landfilling more and recycling less.

On the positive side, our construction recycling has a diversion rate of 91% and staff in Heilman Dining Center manage an innovative pre-consumer food waste composting program that sends more than 40,000 pounds of food waste a year to responsible reuse.

In response to our needs in this realm, the University has recently committed to a goal of 80% waste diverted from the landfill.



*In 2015, University of Richmond had its first zero waste commencement.*

**Waste Minimization**  
.89/5



**Waste Diversion**  
.65/3



**Construction and Demolition  
Waste Diversion**  
.91/1



**Hazardous Waste Management**  
1/1



## Waste Recommendations

- Generate and implement a plan to increase waste diversion from the landfill to 80%.
- Explore opportunities to implement a post-consumer compost program.
- Improve outreach and education efforts related to recycling on campus.
- Create and publicize guidelines for zero waste events.



*University of Richmond sends food waste to a nearby facility, pictured above, where it is composted and later reused in gardens and farms.*



Institutions that conserve water, protect water quality, and promote effective stormwater management do well on this credit. University of Richmond has conservation and reuse practices that have yielded a 10 million gallon reduction in annual potable water use since 2008.

Multiple water conservation strategies have become standard practice, including low-flow toilets, low-flow shower heads, pint-flush urinals, sink aerators, and Energy Star ice machines and washers.

The University adheres to weather-informed irrigation and prioritizes the planting of drought tolerant and native species in new plantings, and we adopted an active Water Quality Management Plan to improve the quality of Westhampton Lake.

Key areas of opportunity include decreasing consumption of potable water and improving wastewater management, especially treating it on-site for use in utilities and for landscaping.

**Water Use**  
1/2



**Rainwater Management**  
2/2



**Wastewater Management**  
0/1



## Water Recommendations

- ◆ Sub-meter water usage in each building.
- ◆ Explore on-campus wastewater treatment for utility and landscape purposes.
- ◆ Increase the amount of native, drought-tolerant, and xeric landscaping on campus.
- ◆ Implement a standard practice to reduce rainwater/stormwater runoff volume.
- ◆ Increase the use of permeable paving surfaces.



## Planning & Administration

21.64 / 36

The STARS rating systems recognizes schools that have broad and robust institutional support for sustainability across a diverse range of campus areas, including campus planning, diversity, affordability, investment, well-being, safety, and work. The University of Richmond recognizes economic, environmental, and social attributes of sustainability, and more importantly, the intersectionality and interdependence of these three dimensions.

Planning for sustainability means planning for equity and inclusion, because one cannot exist without the other. They are inextricably linked. A healthy ecosystem provides essential services - clean air, clean water, healthy food - that are beneficial to all people. Likewise, a just society that meets the needs of its people is more likely to safeguard the environment and demonstrate greater levels of resilience.

Far too often, lower-income and racial and ethnic minority groups bear the greatest environmental burdens, while the most privileged groups can externalize the costs, thereby decreasing the sense of urgency to solve these problems.

*“Any vision of sustainable development fit for the 21st century must recognise that eradicating poverty and achieving social justice is inextricably linked to ensuring ecological stability and renewal.”*  
- Kate Raworth, Oxfam

At its core, sustainability is about meeting needs of all members of our society, in perpetuity. Understanding what those needs are and how best to achieve them requires a multitude of voices, a commitment to diversity, and inclusion of all.



## Diversity & Affordability

9.54 / 10



This credit recognizes schools that are building a more sustainable society and promoting a culture of inclusion and equity. University of Richmond’s leadership in this area led to recognition as a Top Performer in AASHE’s Sustainable Campus Index.

Institutional commitment for diversity and equity and support for underrepresented groups can be seen at the Office of Common Ground, Bonner Center for Civic Engagement, Office of Multicultural Affairs, and Human Resources, to name a few.

Programs that make the University of Richmond more accessible and affordable to a wider variety of students, such as Richmond in Reach and Pathways to a College Experience, are robust and growing.

<b>Diversity and Equity Coordination</b> 2/2	
<b>Assessing Diversity and Equity</b> 1/1	
<b>Support for Underrepresented Groups</b> 2/2	
<b>Support for Future Faculty Diversity</b> 1/1	
<b>Affordability and Access</b> 3.54/4	

## Diversity & Affordability Recommendations

- Include assessments of diversity and equity in governance and public engagement.
- Ensure that social sustainability is robust in all sustainability policy documents.



## Coordination, Planning & Governance 7.17 / 8



This credit recognizes the University for dedicating resources to sustainability, including staff, committees, and creation of the Office for Sustainability. Planning recognizes formal plans to advance sustainability, such as the initiatives in our Climate Action Plan, Campus Master Plan, and the Richmond Promise. Governance relates to our student, staff, and faculty participation in institutional governance bodies and formal role in decision-making, such as those demonstrated by positions on the Board of Trustees and Strategic Planning committees.

**Sustainability Coordination**  
1/1 

**Sustainability Planning**  
3.17/4 

**Governance**  
3/3 

### Coordination, Planning & Governance Recommendations

- Establish a University Committee on Sustainability and the Environment to advance the goals established on the 2010 Climate Action Plan and provide a formal leadership body for sustainability on campus
- Create a strategic plan for sustainability that will guide the University in achieving the goals of our climate and sustainability commitments through the development and implementation of strategies with measurable objectives for advancing sustainability.
- Identify and recommend key programs and priorities for the year and serve as a clearing house for campus sustainability efforts.
- Integrate sustainability in all University guiding documents, including the Strategic Plan.



# Health, Well-Being & Work

4.93 / 7

The integration of sustainability into human resources is the core of this category. It recognizes that our most important resource will always be our people. Our human resources efforts have led to recognition by the Chronicle of Higher Education as one of the “Great Colleges to Work For.” Considerable attention is paid to providing employees a safe, meaningful, and fair employment experience.



**Employee Compensation**  
2.2/3

**Assessing Employee Satisfaction**  
1/1

**Wellness Program**  
1/1

**Workplace Health and Safety**  
.73/2

## Health, Well-Being & Work Recommendations

- Utilize sustainability as a context to connect individual health, institutional health, and health of the community.
- Continue to assess and implement methods to reduce reportable workplace injuries and occupational disease cases.



# Investment

STARS recognizes institutions that make investment decisions that promote sustainability. We did not pursue credits in this arena, but the assessment system revealed some potential areas of work to pursue:

- Explore the establishment of a committee on investor responsibility comprising faculty, staff, and students and may include alumni, trustees, and/or other parties.
- Pursue investment in sustainable industries, businesses selected for exemplary sustainability performance, community development financial institutions, or socially responsible mutual funds.
- Implement and publicize a Green Revolving Fund to support projects that reduce the University’s environmental impact, provide a long-term economic return, and promote education and engagement of campus stakeholders.



## Innovation

4 / 4 

In addition to the standard criteria listed above, STARS gives credit for new, groundbreaking, and uncommon practices and policies.

These Innovation credits often reveal the creativity and passion that motivates sustainability on campus.

### Innovation 1

#### ***Tucker-Boatwright Festival of Literature & the Arts Parking Lot Project***

The Parking Lot Project transformed a University of Richmond parking lot into a yearlong, collaborative artwork, driven by students from diverse disciplines enrolled in a course through the Department of Art and Art History in partnership with the Department of Geography and the Environment. Individual parking spaces were excavated to be green spaces alongside functional spaces, disrupting the parking lot's identity. Students redeveloped the spaces as sites for independent research and public art, while considering questions about sustainability, land use, and landscape on their own terms – as artists, scholars, and citizens. The public was invited to engage with the project and students through presentations and critiques.

### Innovation 2

#### ***Envision the James***

Envision the James (ETJ) is a collaborative community network that works with conservation, recreation, and heritage partners in the James River watershed to plan and implement projects that sustain and enhance the region. The University of Richmond hosts the Chesapeake Conservancy's Outreach Coordinator, Regan Gifford, and provides staff resources to support her efforts to connect students with the James River and with ETJ partners. The University provides office space, mentoring, and educational resources to Ms. Gifford in support of her efforts to inspire conservation efforts on the James River through education, exploration, and community engagement. Internally, the Office for Sustainability, Department of Geography and the Environment, Bonner Center for Civic Engagement, and Recreation offices partner on this endeavor.

### Innovation 3

#### ***REMAP Faculty Learning Community***

In order to support scholarly endeavors and deepen relationships across departments and schools, the Office of the Provost created interdisciplinary Faculty Learning Communities (FLC). The FLC concept encourages cross-program, cross-department, and cross-school interdisciplinary engagement. A global climate change FLC was created to explore the role and power of a liberal education in identifying appropriate and sustainable solutions to climate change. The REMAP FLC derives its name from the first letter of its five imperatives: respond, educate, mitigate, adapt and prevent.

### Innovation 4

#### ***Environmental Justice Think Tank***

Beginning in 2014, a group of faculty, staff, and students met to explore opportunities to increase access to experiential learning for justice and sustainability. This group became the "Environmental Justice Think Tank," which seeks to expand opportunities to work on issues related to the environment, with a focus on climate, food, and the James River, especially in environmental justice communities. Since its formation, this group has reached out to sustainability- and environmentally-minded community organizations and developed relationships aimed at social change in an effort to deepen student learning, provide a bridge for faculty to connect to the community, and allow for genuine collaboration.

## Recognition & Awards

In addition to earning a silver STARS rating, University of Richmond has received a number of other recognitions for its sustainability achievements.



**Sierra Club Cool School**



**Princeton Review Green School**



**AASHE 2016 Sustainable Campuses Index Top Performer Diversity & Affordability**

# Office for Sustainability

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