# -The Path to 2040:

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### THE RADFORD UNIVERSITY Sustainability Climate ACTION PLAN





**RADFORD** UNIVERSITY

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Interim President Carolyn Ringer Lepre, Ph.D.



## Letter from the President

On behalf of Radford University, I am pleased to present The Path to 2040: Radford University's Sustainability and Climate Action Plan, which reflects the university's commitment to sustainability and climate action. The Path to 2040 aligns with Radford University's 2018 - 2023 Strategic Plan: Embracing the Tradition and Envisioning the Future and 2020 - 2030 Master Plan. In addition, it establishes a bold and realistic pathway for the university to fulfill the obligations of the Carbon Commitment signed by former President Brian O. Hemphill, Ph.D., in November 2020.

Dedicated individuals from the President's Task Force on Sustainability, with active engagement from the campus community, worked to establish the goals and strategies outlined in The Path to 2040. It highlights the many strengths of the university and establishes a framework for using these strengths to create a more sustainable institution and positively impact the region, the nation and the world. Through our focus on sustainability in Administration, Academics, Facilities, Operations, and Services, The Path to 2040 touches nearly every aspect of Radford University and has the potential to be transformational, establishing Radford University as a national leader in sustainability and climate action in higher education.

This plan represents another significant step forward for Radford University, capitalizes on our tradition of teaching and learning and creates bold opportunities for collaboration, innovation and positive systemic change.

With Highlander Pride,

austyn Rly

Interim President Carolyn Ringer Lepre, Ph.D.

### CHAD A. REED

Vice President for Finance and Administration/Chief Financial Officer

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## Foreword from the Task Force Chair



Greetings Highlanders:

After signing the Carbon Commitment, former President Brian O. Hemphill, Ph.D., created and charged the President's Task Force on Sustainability with developing a bold yet realistic sustainability and climate action plan that achieves net carbon neutrality by 2040. As part of that charge, it was also important that this work support the university's strategic and master plans and be both actionable and measurable. I had the privilege to serve as the chair of this 13-member task force. Together, we established a systematic and inclusive process that, over the course of 10 months, produced a comprehensive plan that fulfills our charge and charts the course for Radford University's pursuit of sustainability and net carbon neutrality.

As chair of the President's Task Force on Sustainability, I express my gratitude to the task force members for their commitment to sustainability and dedication throughout the process. Their research, insightful recommendations and thoughtful analysis have led to the development of this comprehensive and impactful plan. I would also like to express my appreciation to the campus community for their active participation, feedback and recommendations, as these contributions were invaluable to the process. Finally, I'd like to thank both interim President Carolyn R. Lepre and former President Hemphill for recognizing the importance of this initiative and the value of a sustainable and carbon-neutral Radford University.

The development of the plan is just the first step. We now must work together to pursue these established goals for the benefit of the university, the Commonwealth of Virginia and the world!

Here's to the Path to 2040! Chad A. Reed



# Foreword from the Sustainability Manager

Climate change and other sustainability challenges are profoundly human problems. They are problems that are created by humans, are negatively impacting humans and must be solved by humans. The good news is that we know what to do. We have the science to thoroughly understand the conditions and the technology to do things differently. The solutions exist. Now we simply need to do it.

I'm proud that Radford University is demonstrating leadership for sustainability and has reached a major milestone in developing and adopting The Path to 2040: The Radford University Sustainability and Climate Action Plan. As designed, the plan will drive systemic change in how Radford University functions and has the potential to influence others in the region and around the country to do the same. If we can achieve the goals we've established in a socially equitable, financially viable way, I have no doubt that others will follow. This is not only a tremendous opportunity for Radford to serve as a sustainability leader in our operations, but it is also an opportunity to provide students with the knowledge and skills to understand sustainability challenges and then drive positive change wherever they go post-graduation. The Path to 2040 will clearly define Radford University as a sustainability-focused institution.

Achieving net carbon neutrality and reaching all of our sustainability goals won't happen overnight and won't always be easy. We're at the beginning of the process, and 2040 is in the not-so-distant future. We have a plan with bold yet achievable goals, effective strategies and clear metrics for measuring progress that provides a solid foundation for success. I'm eager to get to work with the Radford University community to pursue sustainability and be part of the solution.

Sincerely, Josh Nease

### History of Sustainability AT RADFORD UNIVERSITY

#### 1991

President Donald Dedmon signs Talloires Declaration, the first official statement made by university presidents, chancellors and rectors of a commitment to environmental sustainability in higher education. The Talloires Declaration is a 10-point action plan for incorporating sustainability and environmental literacy in teaching, research, operations and outreach at colleges and universities.

#### 2008

President Penelope Kyle announces the formation of the Sustainability Steering Committee to guide Radford University to becoming a sustainability leader in the Commonwealth of Virginia.

#### 2009

President Kyle signs American College and University Presidents' Climate Commitment Signatory (ACUPCC, now the Carbon Commitment), with an implementation start date of January 15, 2010. In doing so, Radford University committed to becoming carbon neutral by 2040.

#### 2013

The Sustainability Steering Committee completes the Climate Action Plan and presents the plan to the Board of Visitors on May 10. The Climate Action Plan was not voted on.

#### 2017

Sustainability is named a Core Value of Radford University in the 2017 – 2024 strategic plan, stating "We are committed to integrating sustainable practices into all aspects of our operations and engaging students across the curriculum to learn, discover and contribute to positive current and future environmental solutions."

#### 2018

The Sustainability Steering Committee becomes an internal governance committee of Radford University.

#### 2019

Radford University earns a STARS Silver Rating (Sustainability Tracking, Assessment and Rating System) for sustainability initiatives up to this point. This was the first comprehensive sustainability assessment ever completed at Radford University.

#### 2019

The Radford University Faculty Senate passes "Motion to Support Campus Sustainability," requesting "that President Hemphill recommit to the Carbon Commitment and incorporate sustainability and the Climate Action Plan into the curriculum, campus master plan and campus management activities."

#### 2020

Radford University achieves 11 consecutive years of recognition in The Princeton Review's Guide to Green Colleges.

#### 2020

President Hemphill signs the Carbon Commitment and charges the newly formed President's Task Force on Sustainability to develop a new Sustainability and Climate Action Plan.

#### 2021

The task force completes "The Path to 2040: the Radford University Sustainability and Climate Action Plan."

#### 2040

Radford University achieves net carbon neutrality.





## Why Sustainability?





The effects of our past actions will produce changes in the Earth's systems for centuries to come. That history cannot be changed. However, according to the science, dramatically changing course now can keep the global temperature rise within a 2-degree target.

The higher education sector can continue to lead global solutions to the climate crisis through curriculum, research, operations, community engagement and administration. All of these together constitute the comprehensive higher education approach to mitigating the impacts of climate change. These actions are what is needed – rapid, large-scale action that follows the science.

The world is undergoing immense and widespread change. These changes are leading humanity into unknown territory and creating increasingly complex challenges that impact our environment, our economy and our society. Sustainability is not just maintaining an existing state, but the pursuit of an ideal end state that balances ethical solutions that are economically viable, environmentally sound and socially equitable. Sustainable systems are resilient systems that can withstand volatility and unexpected disruptions to our most valuable services and commodities.

Radford University is committed to taking decisive actions to not only mitigate local harmful environmental and social impacts, but also to take actions that lead to positive change. To pursue this ideal, the President's Task Force on Sustainability developed The Path to 2040: The Radford University Sustainability and Climate Action Plan.



### Background

#### ALIGNMENT WITH THE 2018 - 2023 RADFORD UNIVERSITY STRATEGIC PLAN

The Path to 2040 closely aligns with the university's strategic plan, Embracing the Tradition and Envisioning the Future. The fundamentals of sustainability are built into Radford University's Mission and Core Values.

#### **RADFORD UNIVERSITY MISSION**

As a mid-sized, comprehensive public institution dedicated to the creation and dissemination of knowledge, Radford University empowers students from diverse backgrounds by providing transformative educational experiences, from the undergraduate to the doctoral level, within and beyond the classroom. As an inclusive university community, we specialize in cultivating relationships among students, faculty, staff, alumni and other partners and in providing a culture of service, support and engagement. We embrace innovation and tradition and instill students with purpose and the ability to think creatively and critically. We provide an educational environment and the tools to address the social, economic and environmental issues confronting our region, nation and the world.

#### CORE VALUE

Sustainability — We are committed to integrating sustainable practices into all aspects of our operations and engaging students across the curriculum to learn, discover and contribute to positive current and future environmental solutions. Additionally, the plan supports and contributes to goals in several of the university's strategic focus areas:

- Academic Excellence and Research
- Brand Identity
- Economic Development and Community Partnerships
- Strategic Enrollment Growth
- Student Success

#### THE CARBON COMMITMENT

On Friday, November 13, 2020, Radford University President Brian O. Hemphill, Ph.D., signed the Carbon Commitment, reaffirming the University's commitment to pursuing net carbon neutrality. The Carbon Commitment, a program administered by Second Nature, recognizes the increasing pace and detrimental impacts of climate change and the need for colleges and universities to exercise leadership in addressing the problem. At the core of the Carbon Commitment is the effort to reduce greenhouse gas emissions to net zero by 2040 and to integrate sustainability and climate action into university curriculum and culture. The Carbon Commitment requires that signatory universities develop an implementation plan with a targeted neutrality date.

On November 16, 2020, President Hemphill charged the newly formed President's Task Force on Sustainability with developing a new sustainability and climate action plan that will guide the institution in fulfilling its Carbon Commitment pledge, embodies the institution's core value of sustainability, and supports the Radford University Mission.





#### ALIGNMENT WITH THE 2020 – 2030 RADFORD UNIVERSITY MASTER PLAN

Sustainability is highlighted throughout the master plan, specifically related to infrastructure, including buildings, systems, energy, water and emissions.

- Goal 5: "Plan for systems that respond to the challenges of sustainability, including reductions in energy use and greenhouse gas emissions."
- Theme 5: "Sustainability: Buildings and infrastructure elements will achieve sustainability goals as set forth by the university and in accordance with stated core values."
- Planning Issues: "The university needs to continue its commitment to overall sustainability across campus assets and programs."
- Vision: "Infrastructure Improvements: Campus systems and components will be analyzed and improved to ensure continuing services and to enhance overall campus sustainability."
- Overall Infrastructure Needs: "The Commonwealth of Virginia has promulgated a number of executive orders and other directives to promote sustainability at all state agencies. The university will need to continue to monitor the impacts of these initiatives and adjust activities and priorities accordingly. We will also need to continue to explore the feasibility and cost-effectiveness of potential alternative power sources and renewable energies and identify ways to reduce consumption of power, water and other natural resources."

The Path to 2040 supports implementation of the 2020-2030 Master Plan by providing detailed, actionable items for improving sustainability performance and meeting the university's sustainability goals.

We provide an educational environment and the tools to address the social, economic and environmental issues confronting our region, nation and the world."



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### Current Status

#### SUSTAINABILITY AT RADFORD UNIVERSITY

Radford University evaluates sustainability performance on campus with two primary indicators: carbon footprint and STARS rating.

Carbon footprint is the amount of carbon dioxide and other carbon compounds emitted into the atmosphere due to the burning or consumption of fossil fuels by a particular person, group or entity.

STARS, the Sustainability Tracking, Assessment and Rating System, is a self-reporting framework used by universities around the world for measuring sustainability performance across all sectors of higher education. STARS is administered by AASHE, the Association for the Advancement of Sustainability in Higher Education.

#### THE GREENHOUSE GAS INVENTORY

Carbon footprint is measured through an annual greenhouse gas inventory. The inventory process collects data about emissions sources related to university operations and calculates the association between these operations and greenhouse gas emissions. Radford University has conducted routine annual inventories since 2010. The greenhouse gas inventory encompasses emissions from buildings and facilities that are under Radford University's operational control and emissions directly related to operations at these locations.



Top 10 Sources	Greenhouse Gas Emission MTCO2e	
Purchased Electricity	23,245.07	
On-Campus Stationary (Steam Plant)	9,478.32	
Faculty, Staff and Student Commuting	5,117.48	
Air Travel (Directly Financed and Study Abroad)	2,110.78	
Transmission and Distribution Losses	1,215.70	
Wastewater	559.57	
Direct Transportation (Ground)	375.03	
Refrigerants and Chemicals	310.95	
Paper	122.62	
Fertilizer	63.21	
Total Emissions	42,554.39	11

**Greenhouse Gas Emission MTCO2e** Purchased Electricity On-Campus Stationary Faculty, Staff and Student Commuting Air Travel Transmission and Distribution Losses Wastewater Direct Transportation 💻 Refrigerants and Chemicals Paper • Fertilizer 5,000 10,000 15,000 20,000 25,000 0

#### 2019 CARBON FOOTPRINT - BASELINE FOR THE PATH TO 2040

During Fiscal Year 2019 (July 1, 2018 through June 30, 2019), Radford University's estimated net greenhouse gas emissions totaled 42,554.39 metric tons of carbon dioxide equivalent (MTCO2e). While not the most recent greenhouse gas inventory, the 2019 inventory more accurately represents Radford University's business as usual carbon footprint, rather than 2020, which was impacted by the COVID-19 campus closure and travel restrictions.

#### **Carbon 2019:**



Emissions sources are categorized based on their origin and are referred to as Scopes 1, 2 and 3. Scope 1 emissions are direct sources from campus. This includes on-campus steam production, mobile fuel usage, refrigerants and fertilizers. Scope 2 refers to off-campus emissions sources that are directly linked to campus operations. In Radford University's case, Scope 2 is solely purchased electricity. Scope 3 emissions are indirect emissions linked to university activities. These emissions include university travel, solid waste disposal, water treatment, and faculty, staff and student commuting.

Approximately 54.6% (23,245.51 MTCO2e) of Radford University's total emissions are Scope 2 emissions. Scope 1 (10,227.51 MTCO2e) emissions sources account for 24% of total emissions, produced primarily by burning propane and natural gas on campus, along with use of on-campus vehicles. The remaining emissions are considered Scope 3 and account for 21.3% (9,081.81 MTCO2e) of total emissions.

#### **Greenhouse Gas Emissions by Scope**

Scope 1: Direct emissions sources from campus
Scope 2: Direct, off-campus emissions
Scope 3: Indirect emissions linked to university activities

#### **Greenhouse Gas Emission MTCO2e**

10,227.51 23,245.07 9,081.81

#### STARS 2019 - BASELINE FOR THE PATH TO 2040

The Sustainability Tracking, Assessment and Rating System (STARS) provides a framework for measuring sustainability performance across all aspects of the university - environmentally, socially and economically. A STARS rating is earned by completing a comprehensive information gathering process and entering the information into the STARS reporting tool. The reporting tool is separated into categories and credits. An institution earns points for performance and achievements in each credit area.

In 2019, Radford University completed the first comprehensive sustainability assessment ever conducted at the institution when it submitted its first STARS report. Data included therein was from the three years prior to the submission date. The university earned 50.18 points and a Silver Rating.

STARS categories include Academics, Engagement, Operations and Planning and Administration. Within each category is a wide range of credits that evaluates sustainability comprehensively and provides a quantitative framework for measuring even qualitative information. Because of this, Radford University chose to use STARS as the mechanism for assessing sustainability performance.



#### STARS V2.1 CATEGORIES, CREDITS AND RADFORD UNIVERSITY SCORECARD IN 2019

#### Academics CURRICULUM: 18.04/40.00

- AC01: Academic Courses
- AC02: Learning Outcomes
- AC03: Undergraduate Program
- ACO4: Graduate Program
- AC05: Immersive Experience
- AC06: Sustainability Literacy Assessment
- AC07: Incentives for Developing Courses
- AC08: Campus as Living Laboratory

#### RESEARCH: 11.45/18.00

- AC09: Research and Scholarship
- AC10: Support for Sustainability Research
- AC11: Open Access to Research

#### Engagement CAMPUS ENGAGEMENT: 15.25/21.00

- EN01: Student Educators Program
- EN02: Student Orientation
- ENO3: Student Life
- EN04: Outreach Materials and Publications
- EN05: Outreach Campaign
- EN06: Assessing Sustainability Culture
- EN07: Employee Educators Program
- EN08: Employee Orientation
- EN09: Staff Professional Development

#### PUBLIC ENGAGEMENT: 9.25/20.00

- EN10: Community Partnerships
- EN11: Inter-Campus Collaboration
- EN12: Continuing Education
- EN13: Community Service
- EN14: Participation in Public Policy
- EN15: Trademark Licensing

#### Operations AIR AND CLIMATE: 3.38/11.00

- OP01: Greenhouse Gas Emissions
- OP02: Outdoor Air Quality

#### BUILDINGS: 4.26/8.00

- OP03: Building Operations and Maintenance
- OP04: Building Design and Construction

#### ENERGY: 2.38/10.00

- OP05: Building Energy Consumption
- OP06: Clean and Renewable Energy

#### **FOOD AND DINING: 1.75/8.00**

- OP07: Food and Beverage Purchasing
- OP08: Sustainable Dining

#### **GROUNDS: 2.00/4.00**

- OP09: Landscape Management
- OP10: Biodiversity

#### **PURCHASING: 3.38/6.00**

- OP11: Sustainable Procurement
- OP12: Electronics Purchasing
- OP13: Cleaning and Janitorial Purchasing
- OP14: Office Paper Purchasing

#### TRANSPORTATION: 3.53/7.00

- OP15: Campus Fleet
- OP16: Student Commute Modal Split
- OP17: Employee Commute Modal Split
- OP18: Support for Sustainable Transportation

#### WASTE: 4.08/10.00

- OP19: Waste Minimization and Diversion
- OP20: Construction and Demolition Waste
  Diversion
- OP21: Hazardous Waste Management

#### WATER: 2.00/6.00

- OP22: Water Use
- OP23: Rainwater Management

#### Planning and Administration COORDINATION AND PLANNING: 5.25/8.00

- PA01: Sustainability Coordination
- PA02: Sustainability Planning
- PA03: Participatory Governance DIVERSITY AND AFFORDABILITY: 4.70/10.00
- PA04: Diversity and Equity Coordination
- PA05: Assessing Diversity and Equity
- PA06: Support for Underrepresented Groups
- PA07: Affordability and Access INVESTMENT AND FINANCE: 0.00/7.00
- PA08: Committee on Investor Responsibility
- PA09: Sustainable Investment
- PA10: Investment Disclosure WELL-BEING AND WORK: 2.12/7.00
- PA11: Employee Compensation
- PA12: Assessing Employee Satisfaction
- PA13: Wellness Programs
- PA14: Workplace Health and Safety

### Innovation and Leadership INNOVATION: 4.00/4.00





The world is changing at a rapid and accelerating pace. Some of the change has yielded positive results, as humanity now is more educated, healthy and socially connected than ever before. Human life expectancy continues to increase. However, many of these profound changes are also creating increasingly complex challenges that impact our environment, our economy and our society.

While much of this change can be regarded as progress, an unprecedented amount of stress is being placed on earth's natural and human-made systems. Water quality and quantity, agricultural and industrial pollution, habitat loss and species extinction and human-caused climate change are among the leading challenges facing current and future generations. Overcoming these challenges will require significant changes to the way institutions, industries, businesses and communities operate. Sustainable solutions exist, and the need for action has never been greater.

The Path to 2040 establishes a customized pathway for meeting these challenges with sustainable solutions that provide tremendous opportunities for the institution. For Radford University, the challenges and opportunities related to this plan fall into three overarching themes: implementation across all campuses, legacy infrastructure and funding.





The Path to 2040 establishes a customized pathway for meeting these challenges with sustainable solutions that provide tremendous opportunities for the institution.









#### Implementation across all locations

Radford University Carilion and other locations are integral parts of the university community and are critical to fulfilling the university's mission. The primary difference between these locations and main campus is that these physical locations do not fall under Radford University's operational control. Radford University does not own or operate the buildings, which changes the process for implementing the operations and facilities strategies in the plan and presents an opportunity to collaborate with our partners at these locations. For the most part, the academic, engagement and planning and administration aspects of the plan can be pursued using similar strategies to main campus.

#### Legacy infrastructure

The pursuit of carbon neutrality will require continued increases in energy conservation and efficiency, as well as a conversion to carbon-free energy. This reality is true both on campus and throughout Virginia. For a society whose infrastructure was built on abundant, centralized, on-demand fossil fuel energy, the pursuit of carbon neutrality will be a major transition. Upgrading and replacing legacy infrastructure will require strategic planning, financial resources and time to implement, but it also delivers opportunities to decarbonize, generate cost-savings and create research and learning opportunities for students and the Radford community.

#### Funding

Radford University does not have unlimited funding to implement The Path to 2040. Accordingly, the university must be strategic in evaluating the financial implications of the myriad opportunities and choices to be considered in implementation of the plan. The university must seek opportunities to identify alternative funding streams, generate cost-savings through efficiency projects and renewable energy development, and develop new academic programs that have the potential to recruit additional students.

### Five Pillars and Focal Areas



#### **Overarching Goals**

The Radford University Sustainability and Climate Action Plan can be summarized with five pillars for university sustainability. These goals represent the desired outcomes and strategic intent of the goals and strategies within each focal area of the plan.



**1.** Provide an educational environment and the tools to address the social, economic and environmental issues confronting our region, nation and the world.



2. Achieve net carbon neutrality by 2040 or sooner.



**3.** Create a campus culture of sustainability, inclusivity and well-being that fosters conscious, attentive and competent local and global citizens and leaders.



4. Integrate sustainable practices into all aspects of our operations.



**5.** Position sustainability so that it is a critical component of university planning, administration and governance.

#### Focal Areas

Radford University's vision for sustainability is a comprehensive one that spans the university. For the purpose of the plan, sustainability goals and strategies are separated into focal areas and aim to integrate sustainability into all aspects of the institution. The focal areas include: Academics, Engagement, Operations, Planning and Administration, and Services.

## ACADEMICS

Radford University will integrate sustainability into curriculum, research, scholarship and academic engagement to create a generation of sustainability leaders. With this new focus, students will be able to engage in environmental, economic and equity challenges and forge new solutions to create sustainable ways of life for our campus, community and the planet.



#### **GOAL 1**

Radford University will develop new curriculum opportunities focused on sustainability and the environment.

#### Strategies

A. Develop interdisciplinary major, minor and graduate programs in sustainability and environmental studies.

- 1. Establish a faculty-led group to develop sustainability-focused and related academic programs spanning multiple departments and colleges.
- 2. Adopt an institutional sustainability learning outcome and encourage program-level sustainability learning outcomes.
- 3. Hire new faculty to develop and grow programs.

B. Establish a position to formally lead the effort to expand sustainability in academic programs and develop the framework to coordinate multiple levels of research and curricular integration.

- 1. Coordinate efforts to expand sustainability across curriculum through academic integration and course support.
- 2. Work with colleges and departments to incorporate sustainability learning objectives in programs and courses.
- 3. Ensure that every RU undergraduate student engages in coursework with learning outcomes focused on sustainability.
- 4. Launch a new version of the Environmental Center to focus on expanding and supporting sustainability in curriculum and research.

C. Increase sustainability literacy among Radford University students through academic initiatives that enhance student learning and success.

- 1. Conduct an annual assessment of the sustainability literacy of students.
- 2. Conduct a new course inventory for "sustainability-focused" and "sustainability-related" courses.

D. Grow enrollment in existing and new sustainability-related programs.

- 1. Collaborate with University Relations to develop a public relations campaign that highlights campus sustainability, academic programs and regional opportunities.
- 2. Collaborate with the Virginia Community College System to build a transfer pipeline from associate programs.
- Capitalize on the cultural and recreational opportunities associated with the New River Valley and Appalachian region to attract new students.
- 4. Label sustainability literacy courses in the course registration system to increase visibility (e.g. Green Leaf).
- 5. Establish a sustainability diploma designation that recognizes students that complete courses in sustainability literacy.



#### GOAL 2

Radford University will develop sustainability-focused personal and professional development and engagement opportunities across campus.

#### **Strategies**

A. Facilitate opportunities to participate in sustainability-focused, project-based academic experiences.

- 1. Formally establish sustainability-focused faculty and staff development opportunities.
- 2. Support and grow the ECO Living-Learning Community with project-based and experiential learning opportunities.
- 3. Establish sustainability scholarship and Green Citizen Leader programs to engage students in sustainability projects.
- 4. Develop volunteer service-learning opportunities for student organizations that align with the curriculum.
- 5. Support student organizations with sustainability themes.
- 6. Develop an academic freshman sustainability experience with education of campus sustainability and immersive experiences to build a culture of sustainability.
- 7. Host short courses or training seminars for community members about sustainable development, environmental stewardship, environmental justice and other sustainability and environmental topics.

B. Develop a network of internship and volunteer opportunities focused on sustainability and the environment within the university and with local/regional businesses, organizations and municipalities.

- 1. Coordinate internships with university facilities and operations offices.
- 2. Identify nonprofit, government and private organizations to build a repository of internship and volunteer opportunities focused on sustainability and the environment.
- 3. Develop agreements with local and regional organizations to provide student with personal and professional development and engagement opportunities.



#### GOAL 3

Radford University will build a research and scholarship program focused on sustainability studies and environmental science.

#### **Strategies**

A. Foster student and faculty research on sustainability, climate change, energy, environmental change and environmental justice issues in Appalachia and beyond.

- 1. Coordinate with Faculty Development, the Office of Undergraduate Research and Scholarship (OURS) and other campus entities to develop scholarship opportunities focused on sustainability.
- 2. Offer more immersive, sustainability-focused research and outreach programs that are a week or more in length.
- 3. Establish annual funding specifically to support student and faculty sustainability and environmental research.
- 4. Establish a Sustainability Faculty Fellows program to build research and mentorship opportunities.

B. Establish a framework for "campus as a living laboratory" for project-based learning in courses and with student organizations. Identify campus locations, including Selu Conservancy, for long-term living laboratory sites and support development with funding.

- 1. Identify programs, courses and student organizations to engage with living laboratories.
- 2. Develop and support outdoor classrooms and gardens for learning and research.
- 3. Establish a Sustainability Scholars Program to engage students in sustainability projects including community-based projects in collaboration with the Office of Undergraduate Studies and Scholarship.
- 4. Develop interdisciplinary summer programs at Selu Conservancy to create immersive research and scholarship experiences.



- 5. Continue to support the Radford Amazonian Research Expedition, Alternative Spring Break to Mountaintop Removal Sites, the Arctic Expedition and additional similar opportunities for students.
- 6. Develop new programs in Southwest Virginia and Appalachia to provide regional opportunities to engage in research, scholarship and outreach.

C. Build connections with federal and state agencies and organizations to create a pipeline of sustainability-focused research and job opportunities.

1. Establish cooperative agreements with federal, state and local agencies and organizations for internships, volunteer opportunities and contract work.

D. Make scholarly work open and accessible to the campus community to support universal access to new knowledge and encourage widespread comprehension of sustainability concepts.

- 1. Offer repository hosting that makes versions of journal articles, book chapters and other peer-reviewed scholarly works freely available on the public internet.
- 2. Promote collections of sustainability resources through collaboration with McConnell Library.
- 3. Create a policy or program that helps faculty publish scholarly works via open access or archive final post-peer-reviewed versions of scholarly works in an open access repository.
# ENGAGEMENT

Radford University will increase sustainability literacy and engagement in an effort to turn awareness into meaningful actions that reduce our impacts on the environment and promote equitable solutions to society's greatest challenges.



# GOAL 1

Radford University will enact a comprehensive sustainability outreach and engagement strategy that is integrated throughout a student's experience or an employee's tenure.

#### **Strategies**

A. Communicate sustainability culture, programs, courses and research to potential new students through focused recruitment strategies and materials.

- 1. Continue to pursue listing on The Princeton Review's Guide to Green Colleges and promote the university's Carbon Commitment and STARS Rating.
- 2. Feature sustainability facts and stories in admissions tours.
- 3. Create an online sustainability tour for interested students.

B. Integrate sustainability literacy and culture into Quest, orientation, Welcome Weeks and other firstyear experiences.

- 1. Provide sustainability items instead of normal swag (e.g. reusable bottle for Fill It Forward, reusable utensils and food containers, etc.).
- 2. Integrate sustainability-related community service projects for all students into Welcome Weeks and other first-year programs.

C. Facilitate collaboration among campus partners to develop and implement sustainability education and engagement programs targeting the entire campus community.

- Increase collaboration between the Office of Housing and Residential Life and the Sustainability Office to enhance sustainability in residence hall operations and programming. Facilitate collaboration with the ECO Faculty advisors to enhance the ECO Living-Learning Community with sustainability-focused programming.
- 2. Identify and evaluate means for funding student-led sustainability initiatives, e.g. a student green fund.

- 3. Create peer-to-peer sustainability education programs for employees and students, e.g. Green Events Certification, Green Office Certification, etc.
- 4. Continue to enhance the existing Sustainability Leadership Team internship.
- 5. Develop a Sustainability Events Committee to collaboratively plan Sustainability Week, Earth Week, and other campus-wide sustainability events.
- 6. Implement an organized interactive energy awareness program and make it part of standard ongoing operations.
- 7. Assess campus sustainability culture through a survey or other means.
- 8. Support integration of sustainability into student organizations.

D. Partner with University Relations to launch a campus-wide sustainability promotion and advertising campaign.

- 1. Develop campus signage and outreach materials highlighting sustainability initiatives and features and promoting sustainable behaviors.
- 2. Support the development of a campaign slogan, along with a theme, graphics and key messages.
- 3. Publish articles, both locally and regionally, on efforts to reduce greenhouse gas emissions.
- 4. Create a sustainable living reference guide and educate students about sustainability efforts.

E. Prepare students for a lifetime of sustainability through professional development activities and alumni engagement.

- 1. Prepare students for sustainability-focused careers through collaboration with the Center for Career and Talent Developments.
- 2. Foster greater interaction between students and professionals who are active in sustainability to help them explore vocational and career options.
- 3. Evaluate and develop a graduation pledge for students committing to be socially and environmentally responsible citizens of the world post-graduation.
- 4. Engage alumni in ongoing campus sustainability efforts through collaboration with the Office of Alumni Relations.

# GOAL 2

Radford University will develop connections between campus and the community to address our shared sustainability challenges.

#### Strategies

A. Explore opportunities for a sustainability-focused community service partnership with the City of Radford and other local organizations. Collaborate to provide service opportunities for students and other community members.

- 1. Explore food recovery and delivery partnerships with local organizations and collaborate to organize and implement.
- 2. Explore opportunities for advancing "ReNew the New" or other collaborative local service initiatives.

B. Explore opportunities for collaboration with other New River Valley institutions of higher education on sustainability-related service projects (e.g., food drives, food recovery donations, tree plantings, etc.).

C. Develop a centralized system for encouraging, supporting and recording community service for all faculty, staff and students, including student organizations.

![](_page_37_Picture_24.jpeg)

# OPERATIONS

Radford University will reduce and strive to eliminate emissions and other environmental impacts related to facilities and operations by adapting existing systems and adopting new ones. The university will serve as a leader in climate action in Virginia by implementing pragmatic solutions that are environmentally beneficial and financially viable, saving energy and natural resources and reducing the institution's environmental footprint. These strategies focus on Air and Climate, Buildings, Energy, Grounds, Transportation, Waste, and Water.

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#### **GOAL 1**

Radford University will pursue net zero carbon emissions by 2040, with an interim target of a 50% reduction in greenhouse gas emissions below the 2019 level by 2030.

# Strategies

A. Replace traditional campus fuels and emissions sources with carbon-free and carbon-reduced fuels and emissions sources.

- 1. Complete assessment of Scope 1 and 2 campus emissions sources and applicable strategies for reducing or eliminating these emissions.
- 2. Conduct a feasibility assessment of renewable natural gas and other alternative carbon-free or reduced-carbon steam producing fuels.
- 3. Monitor campus refrigerant inventory and create campus refrigerant guidelines or best management practices.
- 4. Conduct air quality testing of boiler plant emissions as well as complete annual tuning of all boilers.
- 5. Implement projects on campus related to energy storage and/ or microgrid technology as identified in assessments and the Greenhouse Gas Action Plan.

- **B.** Replace conventional electricity with carbon free electricity.
- 1. Complete assessment and modeling of renewable energy options and develop a strategy for deployment.
- 2. Explore collaborative public and private partnerships for renewable energy generation and conservation and efficiency options.
- 3. Develop and implement utility scale renewable energy procurement to decrease Scope 2 emissions.

C. Convert existing systems or install new systems that reduce or eliminate carbon emissions.

- 1. Research energy storage (battery) and microgrid technologies.
- 2. Evaluate feasibility of parking canopy solar arrays in large parking lots.

D. Engage in a carbon offset strategy to eliminate the remaining emissions that are not reached through increased efficiencies, renewable energy generation or cultural changes.

- 1. Conduct a certifiable carbon sequestration assessment that will provide the carbon offset value of university properties.
- 2. Implement certifiable offset strategies for remaining emissions.

E. Develop and implement a Radford University Greenhouse Gas Action Plan.

- 1. Set on-campus and off-campus renewable energy goals with select strategies to achieve these goals.
- 2. Evaluate air and climate plans with any new or ongoing capital leases.

# GOAL 2

Radford University will increase the sustainability of our buildings with a focus on energy, water, waste and people.

#### **Strategies**

- A. Develop construction and renovation standards for buildings.
  - Formalize standards and guidelines for energy-efficient design and construction to ensure compliance with VA Energy Conservation Code and targeting LEED Gold certification or better, with a LEED Silver minimum.

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- 2. Require conversion of controls to Direct Digital Controls (DDC) in renovations or in buildings that have obsolete DDC systems.
- 3. Formalize standards or guidelines for any capital or renovation projects to consider and implement best practices for intelligent infrastructure and energy generation in campus buildings.
- 4. Develop standards or guidelines for capital or renovation projects to consider and implement best practices to promote diversity, equity and inclusion.
- 5. Include Energy Use Intensity targets for all new capital projects and qualifying renovations.

B. Reduce energy and water consumption through increased efficiencies, new conservation strategies, updated operations/processes and education.

- 1. Implement monitoring and evaluation programs to quickly identify causes or locations of problems and inefficiencies.
- 2. Evaluate feasibility of system upgrades and new technologies to increase conservation.
- 3. Continue to monitor trends in engineering for opportunities to increase efficiency and conservation.
- 4. Formalize strategies and evaluation of systems which will allow for detailed management of independent fixtures with building automation systems.

C. Develop and formalize building operations and management standards or guidelines.

D. Consider innovative approaches to energy and water conservation in new building design and renovations.

- 1. When replacing roofs on campus buildings, evaluate solar energy potential.
- 2. As part of the design process for any new buildings, the design team will provide a cost analysis for Zero Energy Buildings versus LEED Silver and Gold construction.
- 3. Evaluate building energy, water and waste plans with any new or ongoing capital leases.

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# GOAL 3

Radford University will make short- and long-term reductions in energy consumption, focusing on electricity, heating and cooling efficiencies and innovative solutions for energy intensive spaces.

#### **Strategies**

A. Develop an Energy Action Team to monitor building energy consumption, analyze data and evaluate new strategies to increase efficiency and conservation. Develop an Energy Management Action Plan.

- 1. Evaluate combined heat and power cogeneration opportunities in the boiler house.
- 2. Evaluate control strategies for overall campus systems (e.g., microgrid, district cooling loops, building utilization, etc).
- 3. Develop and implement campus temperature set point policy or standards.
- 4. Develop and implement campus facility utilization/occupancy scheduling policy or standards.

B. Coordinate with academic departments, labs and the university safety office to develop a "Green Labs Program" and fumehood monitoring program for interested labs to ensure proper functionality and safety.

C. Evaluate building energy plans with any new or ongoing capital leases.

D. Maximize opportunities for energy savings in lighting, including an LED lighting replacement program and installation of vacancy and occupancy sensors in strategic locations.

- 1. Implement LED lighting replacement program.
- 2. Install vacancy/occupancy sensors for existing spaces with focus on larger square footage spaces.

E. Design strategy and standards for new construction and major renovations to evaluate the opportunity and feasibility of energy and water-conserving technologies.

1. Maximize the use of natural light and use low-level ambient lighting with supplemental task lighting as appropriate.

- 2. Evaluate the opportunity and feasibility of heating domestic water with solar energy or waste heat from other systems in capital renovations and new construction projects.
- 3. Pursue information-technology-related power reductions available through technology improvements.
- 4. Evaluate energy-efficiency opportunities with data centers, equipment purchases and data storage options.

G. Establish renewable energy goals that include energy generation, education, and research.

1. Develop research and education programming around campus renewable energy projects.

# GOAL 4

Radford University will enhance the sustainability of the campus grounds and create outdoor spaces that encourage time outdoors.

#### **Strategies**

A. Formalize management standards or guidelines for managing campus grounds.

**B.** Investigate and implement strategies to reduce emissions in grounds and landscaping.

C. Investigate feasibility and benefits of Tree Campus USA and Bee Campus USA designations and apply as appropriate.

D. Establish outdoor spaces to be reserved for classes and events on campus.

E. Investigate feasibility and benefits of establishing pollinator gardens on campus.

F. Launch sustainable garden project, consider feasibility and impacts of garden locations.

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# GOAL 5

Radford University will reduce and offset transportation-related emissions associated with university operations.

#### **Strategies**

A. Create a campus fleet vehicle replacement plan for campus that considers fuel efficiency, fuel type, etc., transitioning towards electric vehicles (EV), hybrid and biodiesel, where possible.

B. Develop and implement a campus EV plan for integration of EV charging stations at prioritized locations and per guidelines from the Commonwealth of Virginia.

C. Develop a campus bike plan or policy designed to encourage bicycle travel.

D. Evaluate the implications of a campus idling policy and pursue as appropriate.

E. Evaluate participation in public transit, bus and rail opportunities that provide connectivity to Northern Virginia (NOVA), Richmond and other population centers.

F. Review public transit routes and usership and enhance as appropriate.

# **GOAL 6**

Radford University will minimize waste through source reduction, landfill diversion, reuse and education.

#### Strategies

A. Reduce waste by focusing on source reduction.

- 1. Continue deploying bottle-filling stations in academic and residential buildings.
- 2. Use information technology to reduce resource use across campus (e.g., video conferencing, e-documents, etc.).

B. Divert waste materials from the landfill by recycling, composting or donating.

- 1. Develop and implement a waste reduction plan with key campus partners that reviews inputs and outputs and identifies waste management strategies targeting landfilled waste.
- 2. Develop an electronic waste diversion program for employees and students.
- 3. Formalize standards or guidelines for construction waste streams.

C. Increase education and outreach around waste minimization and recycling.

- 1. Develop waste and recycling training modules for employees and students.
- 2. Evaluate "building stewards" program as a tool for outreach.

# GOAL 7

Radford University will protect water quality in the New River through management of stormwater runoff from campus grounds.

# **Strategies**

A. Maintain a compliant MS4 stormwater management program and evaluate new strategies for mitigating stormwater runoff impacts.

**B.** Evaluate feasibility of a student volunteer monitoring program for MS4. Implement as appropriate.

# PLANNING AND ADMINISTRATION

Radford University will make sustainability a primary consideration of the planning and administration process, rather than a secondary addition. This will have profound impacts on the institution and provide the pathway for the transformational change outlined in this plan. These strategies focus on Planning and Administration, Diversity and Affordability, Investment and Finance and Well-being and Work.

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# **GOAL 1**

Radford University will institutionalize and implement sustainability at a high level of the university's administration and governance to ensure widespread adoption and extensive campus engagement. Strive to support sustainability at every opportunity.

# **Strategies**

- A. Formalize the institutional framework for the administration of sustainability programs.
- 1. Maintain support for the existing Sustainability Office and expand as needed to effectively implement the Sustainability and Climate Action Plan. Consider adding positions focused on Academics, Student Engagement, Facilities and Operations.
- 2. Maintain support for the existing Sustainability Steering Committee as a body for institution-wide sustainability coordination.
- 3. Create a network of sustainability coordinators throughout divisions and colleges, hold bi-annual meetings, and establish an email listserv to share and discuss information.
- 4. Develop a pathway or framework to provide information and feedback to university leadership in order to integrate sustainability goals and objectives into high level, strategic decisions of the university. Consider a leadership council or cabinet-level sustainability officer and other direct reporting strategies.
- 5. Develop and formalize a list of key sustainability criteria that are consistent with the Sustainability and Climate Action Plan for use in budget and planning processes.

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B. Integrate sustainability and climate action into the university's next strategic plan.

C. Include sustainability and climate action in the university's fundraising strategy, e.g., capital campaign and annual giving.

D. Evaluate issues of environmental justice when planning new infrastructure and work with community to develop equitable solutions.

# GOAL 2

Radford University will support and collaborate to advance a Diversity, Equity and Inclusion Action Plan in accordance with the ONE Virginia Strategic Plan for Inclusive Excellence.

#### **Strategies**

A. Maintain the existing Diversity and Equity Action Committee (DEAC) or other institution-wide body for advancing diversity, equity and inclusion.

**B.** Adopt and implement a Diversity, Equity, and Inclusion Plan in accordance with the ONE Virginia Strategic Plan for Inclusive Excellence.

- Require all students and all employees to participate in cultural competence, anti-oppression, anti-racism and/or social inclusion trainings or activities.
- 2. Engage in a structured assessment process to improve diversity, equity and inclusion on campus.
- 3. Consider creating training and development programs, teaching fellowships, and/or other programs that specifically aim to support and prepare students from underrepresented groups for careers as faculty.

# GOAL 3

Radford University will create support programs that improve the affordability and accessibility of Radford University for underrepresented groups, lowincome students and first-generation students.

A. Establish and advance the Center for Opportunity and Social Mobility to support first generation students and other underrepresented groups.

B. Evaluate and establish support programs for serving low-income students and other underrepresented groups as feasible, e.g., scholarships, childcare assistance and food and shelter assistance.

# GOAL 4

Radford University will collaborate with the Radford University Foundation to encourage and support the transition of Radford University investments to socially responsible, fossil fuel-free investments.

#### Strategies

A. Establish a committee or subcommittee for investor responsibility that includes faculty, staff and students to investigate and evaluate sustainable investment opportunities.

B. Encourage the Radford University Foundation to invest in socially responsible funds and/or an environmental, social and governance fund.

C. Consider making a snapshot of investment holdings available to the public.

D. Inquire with the Student Managed Investment Portfolio Organization (SMIPO) about its sustainable investment strategies and/or socially responsible investing. Encourage and support these investments as appropriate.

# GOAL 5

Radford University will strive to provide university employees a living wage.

#### Strategies

A. Make a formal commitment to pursuing a living wage for university employees and contractors.

B. Develop policy or guidelines to provide employees and long-term contractors a living wage.

# GOAL 6

Radford University will support and encourage employee health, wellness, and satisfaction through programs, benefits and other incentives.

# Strategies

A. Conduct a survey or other assessment that allows for anonymous feedback to measure employee satisfaction and engagement.

B. Maintain and enhance student and employee fitness and wellness programs and facilities.

C. Evaluate smoking policies and redefine designated smoking areas as necessary.

D. Investigate costs, benefits and opportunities of providing an employee wellness incentive program and implement programs as appropriate.

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# SERVICES

Radford University will enhance the sustainability of the wide range of services it provides to faculty, staff and students and reduce the associated environmental, social and economic impacts. Dining, transportation and procurement of goods and services all have impacts on our climate, air quality, water and human health. The strategies outlined in this focal area will reduce the associated carbon emissions, enhance the local environment and support the community.

# **GOAL 1**

Radford University will increase the sustainability of the campus food system in an effort to reduce harmful environmental and social impacts.

# **Strategies**

A. Increase the amount of sustainably produced, ethically sourced and/or local foods and beverages served on campus.

- 1. Conduct an inventory of food and beverage purchases that qualify as sustainably and ethically produced.
- 2. Set immediate, near- and long-term targets for sustainability and ethically produced food products based on Chartwells designations, STARS designations and/or third-party certifications (Fair Trade, Rainforest Alliance, etc.).
- 3. Expand sustainable food purchasing to achieve established purchasing targets. Use Chartwells/Compass guidelines and/or STARS guidelines.
- B. Eliminate or significantly reduce food waste on campus.
- 1. Review, update and formalize procedures and guidelines for recovery and donation of good leftover food from campus dining locations.
- 2. Implement a food waste tracking program to monitor and decrease food waste from campus dining locations.

- 3. Investigate composting, dehydrator and pulper options for decreasing food and other organic waste and implement solutions as soon as possible.
- 4. Conduct baseline assessment of food waste going to landfill.
- 5. Establish immediate, near- and long-term targets for percentage reductions in food waste and take actions to achieve target reductions.

C. Eliminate or significantly reduce single use plastic, polystyrene and other landfilled waste in food and beverage service, vending and other campus services to meet or exceed standards established in Executive Order 77.

- 1. Investigate a reusable container program, as well as paper and compostable container options, for dining takeout, and implement as feasible to comply with EO77.
- 2. Provide reusable beverage and dining ware options for students to purchase, including straws, bags and utensils.

- 3. Promote refillable water bottles and bottle filling stations and provide bottled water in aluminum or other non-plastic containers.
- 4. Develop a targeted phase-out plan of single-use plastics and other single-use items.

D. Increase the number of plant-forward meals and plantbased options served on campus.

- Investigate feasibility of student-run campus gardens to contribute to campus food supply or designated local food events.
- 2. Promote the availability and benefits of sustainable, plant-forward food choices and expand vegan and plant-forward dining options as needed.

E. Increase awareness of sustainable food systems to encourage attentive and conscious food choices.

- 1. Evaluate opportunities to host a farmer's market or community-supported agriculture program on campus or in the community.
- 2. Evaluate options for hosting a sustainability-themed food outlet on site.
- 3. Increase labeling and signage around sustainable food choices.
- 4. Provide information to campus community on current sustainability initiatives in Dining Services.
- 5. Investigate benefits of Green Restaurant certification and pursue as appropriate.
- 6. Develop and implement a campus-wide "sustainable, low-impact or green event program, policy or guidelines" to promote sustainable catering options and reduce landfilled waste, e.g., leftover food, disposable dining ware and other associated waste.
- 7. Develop and implement a "Green Events Certification" program to certify and incentivize more sustainable and environmentally friendly events.

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# GOAL 2

Radford University will develop comprehensive, sustainable purchasing guidelines that align with and contribute to campus sustainability goals (energy, recycling, waste, social responsibility, etc.), EO 77 and STARS.

#### Strategies

A. Develop sustainable procurement guidelines and best practices for campus purchasing and contracts.

- 1. Stay current with advanced trends in sustainable procurement specifications and strategies.
- 2. Create guidelines for sustainable procurement to educate and engage campus in making environmentally friendly purchases.
- 3. Develop standardized sustainability language for solicitations.
- 4. Collaborate with campus contractors to implement sustainability initiatives.
- 5. Create best practice teams comprised of procurement and other university staff to develop strategies and specifications that encourage and enhance sustainable purchasing.
- 6. Promote reuse through purchase of surplus items.
- 7. Promote sustainability in campus procurement through recognition programs, awards and/or incentives for departments that make the biggest strides towards these initiatives.

B. Develop product-specific criteria for high impact products (e.g., chemically intensive services, consumables, furniture, IT equipment, food service providers, professional service providers, transportation and fuels) and commonly purchased or highest quantity items (e.g., paper) where possible to promote more sustainable products.

- 1. Promote the support of a common campus-wide sustainable purchasing initiative, such as buying recycled content paper.
- 2. Encourage and promote the importance in buying Energy Star rated appliances and equipment.
- 3. Develop a sustainability procurement guide that identifies environmentally friendly and sustainable alternatives for commonly purchased items.

C.Establish purchasing guidelines and recommendations to meet or exceed standards established in Executive Order 77, to reduce "disposable" or "single-use" plastic items.

- 1. Create list of acceptable product alternatives currently available from vendors.
- 2. Create an EO77 virtual training for purchasers and event planners, along with other resources to be used by staff and students.

# GOAL 3

Radford University will reduce and offset transportation-related emissions associated with university operations.

#### **Strategies**

A. Investigate and develop a voluntary "Carbon Neutral Commuter" program. Participants can purchase carbon offsets to accompany their parking passes to offset greenhouse gas emissions associated with their commute.

B. Explore "Bus, Bike and Walk" parking permit for off-campus apartments and other commuters to encourage alternative forms of transportation.

C. Promote carpooling and develop prioritized parking for carpool vehicles as needed.

D. Investigate carbon offset opportunities for business travel. If feasible, implement a carbon offset program for ground and air business travel.

E. Investigate if Main-Campus-RUC transit route and Blacksburg/ Christiansburg/Radford route would be carbon net positive.

F. Update telework policy and encourage teleworking as appropriate.

Sustainability is not just maintaining an existing state, but the pursuit of an ideal end state that balances ethical solutions that are economically viable, environmentally sound, and socially equitable.

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# Key Performance Indicators

# Academics

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# GOAL 1

Radford University will develop new curriculum opportunities focused on sustainability and the environment.

Key Performance Indicator	Baseline	Target	Timeline	Responsible Party
<b>1.A.</b> Develop interdisciplinary major, minor and graduate programs in sustainability and environmental studies.	One undergraduate certificate program in sustainability and environmental studies.	Major, minor and graduate programs should start being available by 2024 or earlier.	Near (3-5 years)	Faculty and various departments
<b>1.B.</b> Establish a position to formally lead the effort to expand sustainability in academic programs and develop the framework to coordinate multiple levels of research and curricular integration.	Only about one-quarter of the sustainability manager's time is devoted to academics.	The position is established as soon as possible to coordinate sustainability across academics and research.	Immediate (0-3 years)	Provost and faculty steering committee
1.C. Increase sustainability literacy among Radford University students through academic initiatives that enhance student learning and success.	New Initiative	Sustainability literacy learning outcome for all RU students implemented.	Near (3-5 years)	Sustainability Office and academic sustainability coordinator
<b>1.D.</b> Grow enrollment in existing and new sustainability-related programs.	Eight-students average annual enrollment in the Sustainability and Environmental Studies Certificate	Increase enrollment in new programs to 150 students by 2026. Stabilize enrollment in sustainability programs between 150-200 thereafter.	Long (5-10 years)	Vice President for Enrollment Management

# GOAL 2

Radford University will develop sustainability-focused personal and professional development and engagement opportunities across campus.

Key Performance Indicator	Baseline	Target	Timeline	Responsible Party
<b>2.A.</b> Facilitate opportunities to participate in sustainability-focused, project-based academic experiences.	New initiative	Increase sustainability-focused, project-based academic experiences to eventually provide opportunities for students across academic disciplines.	Immediate (0-3)	Sustainability Office, Faculty Development, Academic Sustainability Coordinator
<b>2.B.</b> Develop a network of internship and volunteer opportunities focused on sustainability and the environment within the university and with local/regional businesses, organizations and municipalities.	New Initiative	Maintain and continue to enhance and grow the network of internship and volunteer opportunities.	Near (3-5 years)	Sustainability Office, Academic Sustainability Coordinator, Center for Career and Talent Development

# GOAL 3

Radford University will build a research and scholarship program focused on sustainability studies and environmental science.

Key Performance Indicator	Baseline	Target	Timeline	Responsible Party
<b>3.A.</b> Foster student-faculty research on sustainability, climate change, energy, environmental change, and environmental justice issues in Appalachia and beyond.	New Initiative	Increase sustainability and climate focused research and scholarship.	Near (3-5 years)	Faculty and various departments
<b>3.B.</b> Establish a framework for "campus as a living laboratory" for project-based learning in courses and with student organizations	New Initiative	Implement a system for faculty, student, and operations collaboration to enhance student learning.	Near (3-5 years)	Provost and faculty steering committee
<b>3.C.</b> Build connections with federal and state agencies and organizations to create a pipeline of sustainability-focused research and job opportunities.	New Initiative	Establish agreements with agencies and organizations.	Near (3-5 years)	Sustainability Office and academic sustainability coordinator
<b>3.D.</b> Make scholarly work open and accessible to the campus community to support universal access to new knowledge and encourage widespread comprehension of sustainability concepts.	New Initiative	Develop and implement a plan.	Immediate (0-3 years)	Vice President for Enrollment Management

# Engagement

# **GOAL 1: CAMPUS ENGAGEMENT**

Radford University will enact a comprehensive sustainability outreach and engagement strategy that is integrated throughout a student's experience or an employee's tenure.

Key Performance Indicator	Baseline	Target	Timeline	Responsible Party
<b>1.A.</b> Communicate sustainability culture, programs, courses and research to potential new students through focused recruitment strategies and materials.	New Initiative	Communicate the university's commitment to sustainablity and recent successes to all potential students.	Immediate (0-3 years)	Admissions
<b>1.B.</b> Integrate sustainability literacy and culture into Quest, orientation, Welcome Weeks and other first-year experiences.	New Initiative	Introduce sustainability to all new students and employees early and often with programming that leads by example.	Immediate (0-3 years)	New Student and Family Programs, Student Life
<b>1.C.</b> Facilitate collaboration among campus partners to develop and implement sustainability education and engagement programs targeting the entire campus community.	New Initiative	A coalition of offices, units and divisions collaborate to deliver sustainability-focused outreach and engagement programs.	Immediate (0-3 years)	New Student and Family Programs, Student Life, Office of Housing and Residential Life, Sustainability Office
<b>1.D.</b> Partner with University Relations to launch a campus-wide sustainability promotion and advertising campaign.	New Initiative	Establish a sustainabilty brand with campus-wide messaging.	Immediate (0-3 years)	Sustainability Office, University Relations
<b>1.E.</b> Prepare students for a lifetime of sustainability through professional development activities and alumni engagement.	New Initiative	Support students towards their transition to post-graduation employment in sustainability- related and sustainability-focused jobs.	Near (3-5 years)	Sustainability Office, Career and Talent Development, Academic Affairs

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# **GOAL 2: PUBLIC ENGAGEMENT**

Radford University will develop connections between campus and the community to address our shared sustainability challenges.

Key Performance Indicator	Baseline	Target	Timeline	Responsible Party
2.A. Explore opportunities for a sustainability- focused community service partnership with the City of Radford and other local organizations. Collaborate to provide service opportunities for students and other community members.	New Initiative	Radford University employees and students participate in sustainability-focused community service activities with the City of Radford and community organizations.	Immediate (0-3 years)	Sustainability Office, Academic Affairs, Student Affairs
<b>2.B.</b> Explore opportunities for collaboration with other New River Valley institutions of higher education on sustainability-related service projects (e.g., food drives, food recovery donations, tree plantings, etc.).	New Initiative	Radford University employees and students participate in sustainability-focused community service activities with other higher education institutions.	Immediate (0-3 years)	Sustainability Office
2.C. Develop a centralized system for encouraging, supporting, and recording community service for all faculty, staff and students, including student organizations.	New Initiative	Increase participation in community service activities.	Immediate (0-3 years)	Student Involvement/ Citizen Leader

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# **GOAL 1: AIR AND CLIMATE**

Radford University will pursue net zero carbon emissions by 2040, with an interim target of a 50% reduction in greenhouse gas emissions below the 2019 level by 2030.

Key Performance Indicator	Baseline	Target	Timeline	Responsible Party
<b>1.A.</b> Replace traditional campus fuels and emissions sources with carbon-free and carbon-reduced fuels and emissions sources.	2019 RU Greenhouse Gas Inventory - Listed fuel sources.	Net Zero by 2040.	Near (3-5 years)	Facilities Management
<b>1.B.</b> Replace conventional electricity with carbon free electricity.	2019 RU Greenhouse Gas Inventory - Listed electricity sources.	Net Zero by 2040.	Near (3-5 years)	Facilities Management
<b>1.C.</b> Convert existing systems or install new systems that reduce or eliminate carbon emissions.	2019 RU Greenhouse Gas Inventory - Listed emissions sources.	Net Zero by 2040.	Immediate (0-3 years)	Facilities Management
<b>1.D.</b> Engage in a carbon offset strategy to eliminate the remaining emissions that are not reached through increased efficiencies, renewable energy generation, or cultural changes.	2019 RU Greenhouse Gas Inventory - Listed emissions sources.	Net Zero by 2040.	Very Long (10+ years)	Facilities Management
<b>1.E.</b> Develop and implement a Radford University Greenhouse Gas Action Plan.	2019 RU Greenhouse Gas Inventory - Listed emissions sources.	Net Zero by 2040.	Immediate (0-3 years)	Facilities Management

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# **GOAL 2: BUILDINGS**

Radford University will increase the sustainability of our buildings with a focus on energy, water, waste and people.

Key Performance Indicator	Baseline	Target	Timeline	Responsible Party
<b>2.A.</b> Develop construction and renovation standard for buildings.	LEED Silver minimum; 12 LEED Gold certifications, 1 LEED Silver certification	Target LEED Gold for new construction and capital renovation, with a LEED Silver minimum.	Near (3-5 years)	Facilities Management
2.B. Reduce energy and water consumption through increased efficiencies, new conservation strategies, updated operations/processes and education.	New Initiative	Stay abreast of new strategies and technologies for conserving energy and water.	Immediate (0-3 years)	Facilities Management
<b>2.C.</b> Develop and formalize building operations and management standards or guidelines.	New Initiative	NA	Immediate (0-3 years)	Facilities Management
<b>2.D.</b> Consider innovative approaches to energy and water conservation in new building design and renovations.	New Initiative	NA	Immediate (0-3 years)	Facilities Management

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# **GOAL 3: ENERGY**

Radford University will increase the sustainability of our buildings with a focus on energy, water, waste and people.

Key Performance Indicator	Baseline	Target	Timeline	Responsible Party
<b>3.A.</b> Develop an Energy Action Team to monitor building energy consumption, analyze data and evaluate new strategies to increase efficiency and conservation. Develop an Energy Management Action Plan.	New Initiative	Establish energy action team that meets regularly to monitor energy consumption.	Immediate (0-3 years)	Facilities Management
<b>3.B.</b> Coordinate with academic departments, labs, and the university safety office to develop a "Green Labs Program" and fume hood monitoring program for interested labs to ensure proper functionality and safety.	New Initiative	Collaboratively implement Green Labs Program.	Immediate (0-3 years)	Facilities Management
<b>3.C.</b> Evaluate building energy plans with any new or ongoing capital leases.	New Initiative	Support capital leases outside of RU operational control in reducing energy consumption.	Long (5-10)	Facilities Management
<b>3.D.</b> Maximize opportunities for energy savings in lighting, including an LED lighting replacement program and installation of vacancy and occupancy sensors in strategic locations.	New Initiative	Reduce energy consumption related to lighting.	Immediate (0-3 years)	Facilities Management
<b>3.E.</b> Design strategy and standards for new construction and major renovations to evaluate the opportunity and feasibility of energy and water conserving technologies.	LEED Silver minimum; 12 LEED Gold certifications, 1 LEED Silver certification	Target LEED Gold or better for all new construction and capital renovation.	Near (3-5 years)	Facilities Management
<b>3.F.</b> Pursue information-technology-related power reductions available through technology improvements.	New Initiative	Reduce energy consumption.	Near (3-5 years)	Facilities Management
<b>3.G.</b> Establish renewable energy goals that include energy generation, education, and research.	New Initiative	Procure renewable energy as according to Greenhouse Gas Action Plan.	Immediate (0-3 years)	Facilities Management

# **GOAL 4: GROUNDS**

Goal 4: Radford University will enhance the sustainability of the campus grounds and create outdoor spaces that encourage time outdoors.

Key Performance Indicator	Baseline	Target	Timeline	Responsible Party
<b>4.A.</b> Formalize management standards or guidelines for managing campus grounds.	STARS 2019	100% IPM	Immediate (0-3 years)	Facilities Management
<b>4.B.</b> Investigate and implement strategies to reduce emissions in grounds and landscaping.	New Initiative	Net Zero by 2040	Long (5-10)	Facilities Management
<b>4.C.</b> Investigate feasibility and benefits of Tree Campus USA and Bee Campus USA designations and apply as appropriate.	New Initiative	Tree Campus USA Certification; Bee Campus review	Immediate (0-3 years)	Facilities Management
<b>4.D.</b> Establish outdoor spaces to be reserved for classes and events on campus.	New Initiative	Establish at least one outdoor classroom space	Near (3-5 years)	Facilities Management; TF Academic Sub
<b>4.E.</b> Investigate feasibility and benefits of establishing pollinator gardens on campus.	New Initiative	Establish a pollinator garden program that is associated with academic and/or engagement programming.	Near (3-5 years)	Facilities Management
<b>4.F.</b> Launch sustainable garden project, consider feasibility and impacts of garden locations.	New Initiative	Establish at least one garden project, with opportunities for growth as needed	Near (3-5 years)	Facilities Management, Student Life, Academics

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# **GOAL 5: TRANSPORTATION**

Radford University will reduce and offset transportation-related emissions associated with university operations.

Key Performance Indicator	Baseline	Target	Timeline	Responsible Party
<b>5.A.</b> Create a campus fleet vehicle replacement plan for campus that considers fuel efficiency, fuel type, etc., transitioning towards electric vehicles (EV), hybrid, biodiesel, where possible.	New Initiative	Develop a campus fleet plan and a baseline for university-wide fleet metrics.	Immediate (0-3 years)	Facilities Management
<b>5.B.</b> Develop and implement a campus EV plan for integration of EV charging stations at prioritized locations and per guidelines from the Commonwealth.	New Initiative	Develop a plan to integrate EV charging stations into campus infrastructure and culture.	Immediate (0-3 years)	Facilities Management
<b>5.C.</b> Develop a campus bike plan or policy designed to encourage bicycle travel.	New Initiative	Develop a campus bike plan.	Near (3-5 years)	Facilities Management
<b>5.D.</b> Evaluate the implications of a campus idling policy and pursue as appropriate.	New Initiative	Improve campus air quality and reduce greenhouse gas emissions.	Near (3-5 years)	Facilities Management
<b>5.E.</b> Evaluate participation in public transit, bus, and rail opportunities that provide connectivity to Northern Virginia (NOVA), Richmond, and other population centers.	New Initiative	Support and participate in regional mass transit connectivity.	Near (3-5 years)	Facilities Management
<b>5.F.</b> Review public transit routes and usership and enhance as appropriate.	New Initiative	Improve usership and efficiency of Radford Transit.	Immediate (0-3 years)	Facilities Management

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#### **GOAL 6: WASTE**

Radford University will minimize waste through source reduction, landfill diversion, reuse and education.

Key Performance Indicator	Baseline	Target	Timeline	Responsible Party
6.A. Reduce waste by focusing on source reduction.	STARS 2019	Increase diversion rate. Establish percentage target.	Immediate (0-3 years)	Facilities Management
<b>6.B.</b> Divert waste materials from the landfill by recycling, composting or donating.	STARS 2019	Increase diversion rate. Establish percentage target.	Near (3-5 years)	Facilities Management
6.C. Increase education and outreach around waste minimization and recycling.	New Initiative	Develop educational program to reduce landfilled waste.	Immediate (0-3 years)	Facilities Management

# **GOAL 7: WATER**

Radford University will protect water quality in the New River through management of stormwater runoff from campus grounds.

Key Performance Indicator	Baseline	Target	Timeline	Responsible Party
<b>7.A.</b> Maintain a compliant MS4 Stormwater Management program and evaluate new strategies for mitigating stormwater runoff impacts.	2020 MS4 Annual Report	Continue compliance and annual reporting.	Immediate (0-3 years)	Facilities Management
<b>7.B.</b> Evaluate feasibility of a student volunteer monitoring program for MS4. Implement as appropriate.	2020 MS4 Annual Report	Continue compliance and annual reporting.	Near (3-5 years)	Facilities Management

# **GOAL 1: COORDINATION AND PLANNING**

Radford University will institutionalize and implement sustainability at a high level of the university's administration and governance to ensure widespread adoption and extensive campus engagement. Strive to support sustainability at every opportunity.

Key Performance Indicator	Baseline	Target	Timeline	Responsible Party
<b>1.A.</b> Formalize the institutional framework for the administration of sustainability programs.	Core Value of the institution and Code of Ethics	The Sustainability and Climate Action Plan is integrated into planning and administration of the university.	Immediate (0-3 years)	President's Office or Designee
<b>1.B.</b> Integrate sustainability and climate action into the university's next strategic plan.	New Initiative	Sustainability is included in next university strategic plan.	Near (3-5 years)	President's Office or Designee
<b>1.C.</b> Include sustainability and climate action in the university's fundraising strategy, e.g. capital campaign and annual giving.	New Initiative	Establish sustainability as part of Radford University capital campaign and annual giving.	Immediate (0-3 years)	University Advancement
<b>1.D.</b> Evaluate issues of environmental justice when planning new infrastructure and work with community to develop equitable solutions.	New Initiative	Assessment of environmental justice impacts is formally included in new infrastructure planning process.	Immediate (0-3 years)	Facilities Management

# **GOAL 2: DIVERSITY AND AFFORDABILITY**

Radford University will create support programs that improve the affordability and accessibility of Radford University for underrepresented groups, low-income students and first-generation students.

Key Performance Indicator	Baseline	Target	Timeline	Responsible Party
2.A. Maintain Diversity and Equity Action Committee (DEAC)	Existing Committee	DEAC remains an internal governance committee serving as an advisory group to President's Cabinet.	Immediate (0-3 years)	Internal Governance
2.B. Adopt and implement a Diversity, Equity and Inclusion Plan, in accordance with the ONE Virginia Strategic Plan for Inclusive Excellence.	STARS 2019	University implements a Diversity, Equity and Inclusion Action Plan.	Immediate (0-3 years)	President's Office or Designee

# **GOAL 3: DIVERSITY AND AFFORDABILITY**

Radford University will create support programs that improve the affordability and accessibility of Radford University for underrepresented groups, low-income students, and first-generation students.

Key Performance Indicator	Baseline	Target	Timeline	Responsible Party
<b>3.A.</b> Establish and advance the Center for Opportunity and Social Mobility to support first generation students and other underrepresented groups.	New Initiative	Established "Center" for serving and supporting first generation students and other underrepresented groups.	Immediate (0-3 years)	Student Life
<b>3.B.</b> Evaluate and establish support programs for serving low-income students and other underrepresented groups as feasible, e.g. scholarships, childcare assistance, and food and shelter assistance.	New Initiative	Establish food and shelter assistance, child care assistance, and additional scholarships for low income students and other underrepresented groups.	Long (5-10)	Student Life

# **GOAL 4: INVESTMENT AND FINANCE**

Radford University will collaborate with the Radford University Foundation to encourage and support the transition of Radford University investments to socially responsible, fossil fuel-free investments.

Key Performance Indicator	Baseline	Target	Timeline	Responsible Party
<b>4.A.</b> Establish a committee or subcommittee for investor responsibility that includes faculty, staff, and students to investigate and evaluate sustainable investment opportunities.	New Initiative	Socially responsible and fossil fuel free investing by 2040 or sooner.	Near (3-5 years)	RU Foundation or Office of University Advancement
<b>4.B.</b> Encourage the Radford University Foundation to invest in Socially Responsible funds and/or an Environmental, Social, and Governance fund.	New Initiative	The Radford University Foundation invests in a socially responsible investing fund and/ or an environmental, social, and governance investing fund.	Near (3-5 years)	RU Foundation or Office of University Advancement
<b>4.C.</b> Consider making a snapshot of investment holdings available to the public.	New Initiative	Annual snapshot of investment holdings published on website.	Near (3-5 years)	RU Foundation
<b>4.D.</b> Inquire with the Student Managed Investment Portfolio Organization (SMIPO) about their sustainable investment strategies and/or socially responsible investing. Encourage and support these investments as appropriate.	New Initiative	Engage SMIPO on socially responsible investing, encourage investment.	Immediate (0-3 years)	Sustainability Office, Davis College, SMIPO

# **GOAL 5: WELL-BEING AND WORK**

Radford University will strive to provide university employees a living wage.

Key Performance Indicator	Baseline	Target	Timeline	Responsible Party
<b>5.A.</b> Make a formal commitment to pursuing a living wage for university employees and contractors.	New Initiative	University publicly commits to paying a living wage based on the MIT Living Wage Calculator.	Immediate (0-3 years)	President's Office or Designee
<b>5.B.</b> Develop policy or guidelines to provide all employees with a living wage.	New Initiative	Pay all employees a living wage based on the MIT Living Wage Calculator.	Near (3-5 years)	President's Office or Designee

# **GOAL 6: WELL-BEING AND WORK**

Radford University will support and encourage employee health, wellness and satisfaction through programs, benefits and other incentives.

Key Performance Indicator	Baseline	Target	Timeline Responsible Party	Responsible Party
6.A. Conduct a survey or other assessment that allows for anonymous feedback to measure employee satisfaction and engagement.	New Initiative	University develops and conducts employee satifaction survey.	Immediate (0-3 years)	Human Resources
<b>6.B.</b> Maintain and enhance student and employee fitness and wellness programs and facilities.	STARS 2019	Maintain student and employee wellness programs.	Near (3-5 years)	Human Resources
<b>6.C.</b> Evaluate smoking policies and redefine designated smoking areas as necessary.	Current designated smoking areas are not marked	Redefine and mark smoking areas.	Near (3-5 years)	Facilities Management
6.D. Investigate costs, benefits and opportunities of providing an employee wellness incentive program and implement programs as appropriate.	New Initiative	Implement employee wellness incentive program to encourage improved health and overall wellness of employees.	Near (3-5 years)	Human Resources

# **GOAL 1: DINING**

Radford University will increase the sustainability of the campus food system in an effort to reduce harmful environmental and social impacts.

Key Performance Indicator	Baseline	Target	Timeline	Responsible Party
<b>1.A.</b> Increase the amount of sustainably produced, ethically sourced and/or local foods and beverages served on campus.	9.93% in 2018 per Chartwells criteria	Serve sustainably produced and ethically sourced food whenever possible.	Immediate (0-3 years)	University Services
<b>1.B.</b> Eliminate or significantly reduce food waste on campus.	New Initiative	Reduce the amount of wasted food going to the landfill from campus dining locations.	Immediate (0-3 years)	University Services
<b>1.C.</b> Eliminate or significantly reduce single-use plastic, polystyrene and other landfilled waste in food and beverage service, to meet or exceed standards established in Executive Order 77.	New Initiative	Phase out all food and beverage- related single-use plastic by 2025.	Immediate (0-3 years)	University Services
<b>1.D.</b> Increase the number of plant-forward meals and plant-based options served on campus.	New Initiative	Promote plant-forward meals and plant-based options at all meals.	Immediate (0-3 years)	University Services
<b>1.E.</b> Increase awareness of sustainable food systems to encourage attentive and conscious food choices.	New Initiative	Make Sustainability a significant message in Dining Services marketing and outreach programming.	Immediate (0-3 years)	University Services

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# **GOAL 2: PROCUREMENT**

Radford University will develop comprehensive, sustainable purchasing guidelines that align with and contribute to campus sustainability goals , EO 77, and STARS.

Key Performance Indicator	Baseline	Target	Timeline	Responsible Party
<b>2.A.</b> Develop sustainable procurement guidelines and best practices for campus purchasing and contracts.	New Initiative	Provide guidelines and recommendations to integrate sustainability into purchasing and contracts.	Immediate (0-3 years)	Procurement and Contracts
2.B. Develop product specific criteria for high impact products (e.g., chemically intensive services, consumables, furniture, IT equipment, food service providers, professional service providers, transportation and fuels) and commonly purchased or highest quantity items (e.g. paper) where possible to promote more sustainable products.	New Initiative	Provide clear criteria and recommendations for high impact products to reduce consumption and impact.	Immediate (0-3 years)	Procurement and Contracts
2.C. Establish purchasing guidelines and recommendations to meet or exceed standards established in Executive Order 77, to reduce disposable or single use plastic items.	New Initiative	Eliminate single use plastics from campus purchasing and distribution.	Immediate (0-3 years)	Procurement and Contracts

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# **GOAL 3: TRANSPORTATION**

Radford University will reduce and offset transportation-related emissions associated with university operations.

Key Performance Indicator	Baseline	Target	STARS v2.2 Credit	SP KPI	MP KPI	Timeline	Responsible Party
<b>3.A.</b> Investigate and develop a voluntary "Carbon Neutral Commuter" program. Participants can purchase carbon offsets to accompany their parking passes to offset greenhouse gas emissions associated with their commute.	New Initiative	Implement voluntary "Carbon Neutral Commuter" program.	OP2, OP16	Core Value	MP4.1	Immediate (0-3 years)	University Services and Sustainability Office
<b>3.B.</b> Explore "Bus, Bike, Walk" parking permit for off-campus apartments and other commuters to encourage alternative forms of transportation.	New Initiative	Offer Bus, Bike, Walk plan/parking permit for off-campus apartments and other commuters.	OP16, OP17	Core Value	MP4.1	Immediate (0-3 years)	University Services
<b>3.C.</b> Promote carpooling and develop prioritized parking for carpool vehicles as needed.	New Initiative	Implement carpooling and "bus, bike and walk" information campaign.	OP16, OP17	Core Value	MP4.1	Immediate (0-3 years)	University Services and Sustainability Office
<b>3.D.</b> Investigate carbon offset opportunities for business travel. If feasible, implement a carbon offset program for ground and air business travel.	New Initiative	Evaluate options for offsetting business travel emissions and implement as feasible.	OP2	Core Value	MP4.1	Immediate (0-3 years)	Sustainability Office
<b>3.E.</b> Investigate if main campus-RUC transit route and Blacksburg/Christiansburg/ Radford route would be carbon net positive.	New Initiative	Evaluate net carbon footprint of potential Radford Transit route between Radford and RUC.	OP17	Core Value	MP4.1	Immediate (0-3 years)	University Services and Sustainability Office
<b>3.F.</b> Update telework policy and encourage teleworking as appropriate.	New Initiative	Reduce commuter emissions through increased teleworking.	OP17	Core Value	MP4.1	Immediate (0-3 years)	Human Resources

# Implementation and Tracking Progress

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#### Implementation

The Path to 2040: The Radford University Sustainability and Climate Action Plan will be implemented alongside the Radford University Strategic Plan and Master Plan. With the support of the Board of Visitors and the President's Office, and in conjunction with academic and administrative departments, the plan can be implemented comprehensively and effectively. Success will require commitment and support from the university's administrative and academic leaders and conscious participation from the campus community.

The Sustainability Office will serve as a point of contact on implementation and will provide strategic support to the university community. The Sustainability Steering Committee will work to advance the new Sustainability and Climate Action Plan through collaborations with and recommendations for the university leaders and the campus community.

#### **Tracking Progress**

The Sustainability Office will lead the process for tracking and measuring sustainability performance on campus. In collaboration with the Sustainability Steering Committee and other campus partners, the Sustainability Office will collect campus-wide data and use an annual greenhouse gas inventory and STARS to assess progress towards the goals in the plan.

#### Greenhouse Gas Inventory

An annual greenhouse gas inventory will be conducted for each fiscal year (July 1 – June 30). The annual inventory will be published on the Sustainability web page, and reported to Second Nature and published on their "Reporting" webpage.

The Radford University Sustainability Office currently uses SIMAP (Sustainability Indicator Mapping and Analysis Platform), a web-based tool for analyzing greenhouse gas emissions, for measuring its carbon footprint. SIMAP processes all data with emissions conversion factors that translate different emissions sources to greenhouse gas equivalents. This tool calculates energy consumption, amounts of three greenhouse gases, level of emissions from each source and category and total metric tons of carbon dioxide equivalent (MTCO2e). SIMAP is the current industry standard tool for calculating emissions in higher education and is supported by STARS and Second Nature.

The university will continue to update and improve the process to remain current with the higher education standard for measurement.

#### STARS – Sustainability Tracking, Assessment and Rating System

A STARS rating is valid for three years. Radford University will strive to submit within the three-year cycle. The university's first STARS submission was in May 2019 and the next submission is targeted prior to May 2022. The STARS program is updated regularly based on data and feedback from the higher education community. The most up-to-date version of STARS will be used for reporting. The 2022 submission will use STARS v2.2.

#### Radford University Sustainability Annual Progress Report

The Sustainability Office will begin producing an Annual Progress Report that aligns sustainability performance and initiatives with the Key Performance Indicators established in this plan. The Annual Progress Report will be published in the fall of each academic year.

#### 2021 Sustainability and Climate Action Plan Update and Revision Schedule

The Radford University Sustainability and Climate Action Plan will best serve the institution if it is updated regularly as the institution makes progress and gains experience, as technologies change and as opportunities arise. The plan should be updated at least every five years, with the option to revise sooner if need arises.

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# Acknowledgements

Radford University expresses its deep appreciation and sincere gratitude to the many individuals who actively engaged in this year-long sustainability and climate action planning process. Through participation in forums and surveys, countless individuals on campus provided diverse perspectives and critical feedback for shaping a sustainable Radford University. A special thank you is extended to the members of the President's Task Force on Sustainability for their commitment to this process; to Chad Reed for providing the leadership required to create this comprehensive and inspirational plan; to Josh Nease for his invaluable contributions, dedication, and drive to see this process through. This effort would not be possible without him; to former President Hemphill for signing the Carbon Commitment and charging the Task Force; and to interim President Lepre for supporting sustainability and the completion of this plan.

## President's Task Force on Sustainability Chad A. Reed

Chair, Vice President for Finance and Administration/Chief Financial Officer

**Aysha Bodenhamer, Ph.D.** Assistant Professor, Department of Sociology

Holly Cline, Ph.D. Professor and Chair, Department of Design

**Jorge Coartney** Assistant Vice President for Facilities Management

**Craig Cornell** Vice President for Enrollment Management

**Heather Keith, Ph.D.** Executive Director of Faculty Development

**Stockton Maxwell, Ph.D.** Associate Professor, Department of Geospatial Science

**Josh Nease** Sustainability Manager

James Perkins Director of University Services

**Orion Rogers, Ph.D.** Interim Provost and Vice President for Academic Affairs

**Rick Roth, Ph.D.** Professor Emeritus, Geospatial Science

**Tricia Smith** Associate Vice President for Student Life

**Chris Wozniak** Student Representative

#### Writing Team Chad A. Reed Vice President for Finance and Administration/Chief Financial Officer

**Josh Nease** Sustainability Manager

**Bill Shorter** Director of Policy, Financial Reporting and Accounting

#### **Design and Production Team Mary Beth Kegley** Graphic Design Manager

**Pam McCallister** Marketing Copywriter/Editor

**Evan Musgrave** University Photographer

**Printing Services** 

#### Board of Visitors Robert Archer Rector Thomas Brewster, M.S. '95. Ed.D.

**Jay A. Brown, Ph.D.** Vice Rector

Krisha Chachra

Charlene A. Curtis '76

Rachel D. Fowlkes, Ed.D.

Susan Whealler Johnston, Ph.D.

Mark S. Lawrence

Debra K. McMahon, Ph.D.

Lisa W. Pompa '86

**Nancy Angland Rice** 

David A. Smith '85, M.S. '87

**Marquett Smith '85** 

Georgia Anne Snyder-Falkinham

Lisa Throckmorton '94

Katie Hilden, Ph.D. Faculty Representative

**Grace Hurst '22** Student Representative



# Appendix:

#### METHODOLOGY AND PROCESS FOR PLANNING

On Nov. 16, 2020, President Hemphill charged the newly formed President's Task Force on Sustainability with developing a new sustainability and climate action plan that guides the institution in fulfilling its Carbon Commitment pledge, embodies the institution's Core Value of Sustainability, and supports the Radford University Mission.

The President's Task Force on Sustainability was designed to enhance cross-campus collaboration and develop partnerships and strategies for advancing sustainability and achieving net carbon neutrality. Former President Hemphill appointed 13 faculty, staff and student members from across the university community. This specially formed team worked to develop a sustainability and climate action plan that permeates university culture, trains students to be sustainability leaders and demonstrates that achieving carbon neutrality is possible for all types of institutions.

The Task Force convened at six-week intervals over 10 months to create The Path to 2040: The Radford University Sustainability and Climate Action Plan. In between plenary meetings, Task Force subcommittees engaged stakeholders from each of their focus areas and made recommendations that strategically reduce carbon emissions and integrate sustainability and climate action into academics and university culture. Subcommittee focus areas included Academics, Engagement, Operations, Planning and Administration and Services.

The Task Force was directed to develop a bold, yet realistic sustainability and climate action plan that:

- Achieves net carbon neutrality by 2040 or sooner;
- Establishes new sustainability goals, targets and actions based on current data;
- Recommends new energy strategies that reduce costs over the course of the plan;
- Integrates social justice and equity as critical to our sustainability mission;
- Includes clear metrics for measuring progress;
- Supports implementation of the 2018 2023 Strategic Plan, 2020 2030 Master Plan, and the Carbon Commitment.

#### Task Force Members

#### Chad A. Reed

Chair, Vice President for Finance and Administration/Chief Financial Officer

**Aysha Bodenhamer, Ph.D.** Assistant Professor, Department of Sociology

**Holly Cline, Ph.D.** Professor and Chair, Department of Interior Design and Fashion

**Jorge Coartney** Assistant Vice President for Facilities Management

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**Tricia Smith** Associate Vice President for Student Life

**Chris Wozniak** Student Representative

#### Subcommittees

Task Force leadership used the STARS framework for determining the focal areas of the strategic plan and formed a subcommittee for each.

#### ACADEMICS - CURRICULUM AND RESEARCH

Chair: Stockton Maxwell, Ph.D.

- Sustainability Across Curriculum Academic Courses, Learning Outcomes and Campus as a Living Lab
- New Programs: Majors, Minors, Graduate Programs and High Impact Practices
- Research and Scholarship

#### **ENGAGEMENT – CAMPUS AND PUBLIC**

#### Chair: Tricia Smith

- Student and Employee Engagement, Training and Orientation
- Outreach Campaigns and Publications
- Community Partnerships and Community Service

#### **OPERATIONS – FACILITIES AND GROUNDS**

#### **Chair: Jorge Coartney**

- Emissions, Buildings, Energy and Climate Impacts
- Grounds, Purchasing, Campus Fleet, Waste and Water

#### **PLANNING AND ADMINISTRATION**

#### Chair: Orion Rogers, Ph.D.

- Sustainability Coordination and Planning
- Diversity, Equity and Affordability
- Investment and Finance
- Well-being and Work

#### SERVICES

#### **Chair: James Perkins**

- Food and Dining and Waste
- Purchasing and Transportation

#### PLANNING PROCESS OVERVIEW

## Phase 1: Understanding Sustainability at Radford University NOVEMBER 2020 – JANUARY 2021

During Phase One, the Task Force held the initial meeting, received the charge from former President Hemphill and began learning about sustainability at Radford University. Between November and January, Task Force members studied a shared body of information as to develop a common understanding of sustainability, carbon neutrality, and the current status of sustainability at the university.

- November 16, 2020: President's Task Force on Sustainability Charge Meeting
- January 15, 2021: Task Force Plenary Meeting

## Phase 2: Establishing Goals, Strategies and Actions for a Sustainable Radford University JANUARY 2021 - APRIL 2021

Beginning in January 2021, subcommittees convened for the first time to begin reviewing and discussing a wide variety of sustainability strategy considerations. Subcommittees continued to meet frequently in between Task Force plenary meetings. Throughout February and March, the Task Force held two open forums to provide all community members with the opportunity to provide general input into the process, as well as a joint meeting with the Sustainability Steering Committee. In April, subcommittees presented the goal and strategy recommendations for their focus area to the Task Force.

- February 17, 2021: Open Forum #1
- February 19, 2021: Open Forum #2
- February 26, 2021: Task Force and Sustainability Steering Committee Joint Meeting
- April 9, 2021: Task Force Plenary Meeting to Present Recommendations

## Phase 3: Writing the Climate Action Plan MAY 2021 - OCTOBER 2021

By May 21, Task Force members provided comments and feedback to the draft recommendations presented at the April 9 plenary meeting. Then, at the May 21 Task Force plenary meeting, members discussed the draft recommendations, provided additional comments, and established a writing team. The writing team prepared the draft Sustainability and Climate Action Plan from May – September.

- May 21, 2021: Task Force Plenary Meeting to Discuss Recommendations and Writing Team
- August 24, 2021: Task Force Plenary Meeting to Discuss Writing Team Drafts
- September 22 October 6, 2021: Open Comment Period on Task Force Goals and Strategies
- October 28, 2021: Task Force Plenary Meeting to Discuss Submitted Comments and Final Draft









#### TIMELINE AND PROCESS

1. President's Task Force on Sustainability Charge Meeting: NOVEMBER 2020

- Charge Task Force
- Establish subcommittees
- Share background/baseline data
- Engage consultant for energy modeling

## 2. Convene Subcommittees: JANUARY - MARCH

- Present current status information; request additional information
- Open forums for faculty, staff and students
- Breakout sessions and one-on-one meetings
- Analyze and review options
- Subcommittees prepare reports to present to Task Force

## 3. Task Force Plenary Meeting: **APRIL**

- Subcommittees present reports
- Analyze and review options
- Additional subcommittee meetings as necessary

### 4. Prepare Draft Report: MAY - AUGUST

- Share with Task Force
- Review/comment period, meet if necessary

## 5. Final Draft to Task Force Chair: **OCTOBER**

• Review/comment period, meet if necessary

## 6. Final Draft to Leadership Council and Cabinet: **NOVEMBER**

- Presentation
- Review/comment period

## 7. Final Draft to Interim President Lepre **NOVEMBER**

## 8. Final Draft Presented to Board of Visitors **DECEMBER**

#### 2019 GREENHOUSE GAS INVENTORY REPORT (PDF):

https://www.radford.edu/content/dam/departments/administrative/ Sustainability/Documents/RUGGI\_Report\_2019.pdf

#### **STARS REPORT CARD:**

https://reports.aashe.org/institutions/radford-university-va/ report/2019-05-21/



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Sustainability

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