Welcome

REVIEW, ASSESS, REVISE, UPDATE

It has been almost nine years since WCU released its first Climate Action Plan in 2013. The CAP, as it's called, set a **carbon neutrality by 2025 goal** & **78 sustainability objectives** in six key topic areas.

Over the years, the document has served the university well, inspiring action with an ambitious carbon neutrality target and providing guidance on priority initiatives to pursue.

But much has changed in the world and on campus since 2013 – not least the increasing urgency of calls by climate scientists, activists, and policy-makers to rapidly and significantly reduce carbon emissions from all sources.

It is time to review our progress, consider the challenges of the 2020s and beyond, and update our Climate and Sustainability Action Plan for the coming years.

So thank you for joining us today. Please take some time to:

- review the information on the posters on the walls,
- take a look at WCU's first Climate Action Plan (accessible via QR code on the Office of Sustainability's website: https://www.wcupa.edu/sustainability),
- ask questions, share ideas, talk with others in the room, and
- leave written comments and suggestions for others to think about.

West Chester University
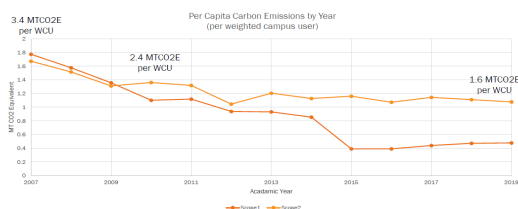
CLIMATE ACTION PLAN
CARBON NEUTRAL BY 2025

SCAN ME

WCU's 2013 Climate Action Plan

WCU's first Climate Action Plan, published in 2013

Scopes of emissions

SCOPE 1

On campus combustion, aka *Direct Emissions*

* Natural Gas and Heating Oil

* Gasoline and Diesel

* Refrigerants and other chemicals

SCOPE 2

Purchased electricity, aka *Indirect Emissions*

* PECO electricity

* RECs

* On campus electricity generation

SCOPE 3

All Other Indirect Emissions

* Commuting

* Business & study abroad travel

* Solid waste and wastewater

* Food

Scope 1 and Scope 2 emissions : per W.C.U., Location-based

3.4 MTCO2E per WCU

2.4 MTCO2E per WCU

1.6 MTCO2E per WCU

Per Capita Carbon Emissions by Year (per weighted campus user)

MTCO2 Equivalent — Academic Year

Scope1 — Scope2

Progress to Date

- 78 total objectives in the CAP
  - 16 **Implemented** (21%)
  - 34 **In Progress** (44%)
  - 28 **Not Pursued** (35%)

COMMENTS / SUGGESTIONS

SUSTAINABILITY AT WCU

West Chester University has made **environmental, social, and economic sustainability** a priority for decades, though only since the turn of the twenty-first century have we consistently referred to this idea with the term "sustainability."

In the late twentieth century, environmental protection was the focus, as evidenced by the preservation of 125 acres on South campus as the **Robert B. Gordon Natural Area for Environmental Studies** and the creation of a Green Campus Committee and an Environmental Council.

In the 1990s and early 2000s, as awareness of the negative impacts of carbon emissions grew, *global warming* and the *climate crisis* became an urgent priority, as *social and racial equity* and *resilience* in the face of widespread and more frequent natural disasters did in the 2010s.

"Sustainability" as an overarching concept includes these challenges and more and was recognized by the United Nations with the 2015 adoption of the organization's *Sustainable Development Goals* (aka the UN SDGs).

The history of sustainability at WCU is a long and rich one, worthy of review as we consider priorities for the next chapter in these efforts.
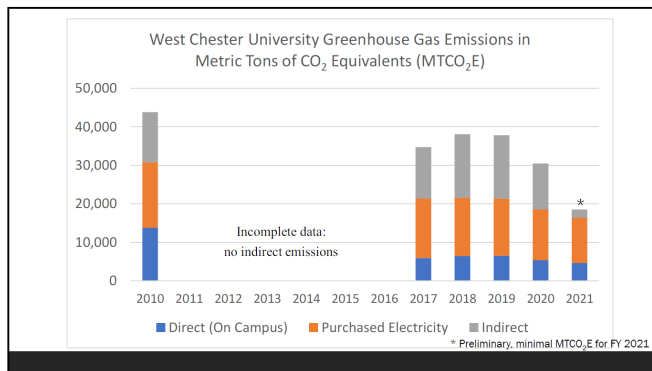
SOME WCU SUSTAINABILITY MILESTONES *

1971:	**Gordon Natural Area** created following student advocacy and collaboration with WCU administration and Council of Trustees
1992:	WCU **Green Campus Committee** created
2001:	Formation of WCU's **Environmental Council**, precursor to the current Sustainability Council
2005:	First **geo-exchange heating and cooling system** installed on campus (Village Apartments, on South Campus)
2007:	"Environmental awareness" added to WCU *Plan for Excellence* **strategic plan**
2008:	Initial **North campus district geo-exchange** heating and cooling system construction project
	First **Sustainability across the WCU Curriculum** workshop
2009:	**North Campus Outdoor Classroom** dedicated
2010:	WCU signs the **American College and University Presidents Climate Commitment**
	Position of campus **Sustainability Coordinator** created
	North Campus Garden created
2013:	Publication of WCU's first **Climate Action Plan: Carbon Neutral by 2025**
2014:	Decommissioning of campus **coal-fired boiler plant**
2015:	**South Campus Garden** created
2017:	**Brandywine Project Sustainability Workshops** launched
	Office of Sustainability established
2019:	**Demolition** of WCU's campus coal-fired boiler plant
	Sustainability Peer Education program launched
	Natural Pigments and Dyes Garden created
2020:	**Green Office Program** started
	Zero Waste planning efforts begin w/ audit

* This is necessarily a partial list of important efforts and accomplishments.

SCAN ME

WCU's 2013
Climate Action Plan

West Chester University Greenhouse Gas Emissions in Metric Tons of CO$_2$ Equivalents (MTCO$_2$E)

Incomplete data: no indirect emissions

■ Direct (On Campus) ■ Purchased Electricity ■ Indirect
* Preliminary, minimal MTCO$_2$E for FY 2021

- Our sustainability efforts address many challenges – in transportation, dining services, waste and recycling, purchasing, energy consumption and building operations, and more.

- But carbon emissions, as a yardstick by which we measure our contributions and responsibility for climate change, merit emphasis.

- WCU made good progress in reducing total MTCO2Es between 2010 and 2019 (the last full fiscal year before campus shutdowns due to the COVID-19 pandemic significantly reduced energy consumption).

- Per person ("weighted campus user" is a common metric used for institutions of higher ed) and per square foot of building space carbon emissions dropped even more.

COMMENTS / SUGGESTIONS

Carbon Neutrality

SUSTAINABILITY COUNCIL
SC
WEST CHESTER UNIVERSITY

PROGRESS

Since 2010, WCU's baseline year for measuring emissions, we have made good progress in reducing **total greenhouse gas emissions** (measured in *metric tons of carbon dioxide equivalents*, or MTCO2E).

Because student enrolment, faculty and staff employed, and square feet of campus building space have all increased in recent years, the reductions in **per person** and **per square foot of building space** carbon emissions are even more impressive.

Despite these accomplishments, WCU is not on track to achieving carbon neutrality by our original Climate Action Plan's target of 2025. At least, not without purchasing tens of thousands of MTCO2Es of carbon offsets, a strategy the university cannot afford and one which we do not want to rely on.

What then, should we do?

As of May 2022, we propose two principal changes in our carbon neutrality commitment:

1) identify emissions reduction strategies for three major types of carbon emissions and

2) set separate carbon neutrality targets for each of these "scopes."

SCOPES OF CARBON EMISSIONS

- **Scope 1**: On campus combustion of fossil fuels, including
    - natural gas,
    - heating oil,
    - gasoline,
    - diesel, and
    - compressed natural gas

- **Scope 2**: Emissions related to purchased electricity

- **Scope 3**: Indirect emissions that come from business and academic travel, commuting, solid waste, wastewater, and other sources

To identify strategies for reducing our carbon emissions, we need to understand where they come from and what level of control the institution has over them.

SCOPE	*PROPOSED* GOALS (May 2022)	COMMENTS / SUGGESTIONS
1. ON-CAMPUS FOSSIL FUEL COMBUSTION	• For **Scope 1** emissions, we aim to convert as much of our heating and cooling systems to geo-exchange technologies and our campus vehicles to EV technologies. Such an approach cannot be accomplished as quickly as the procurement of renewable electricity, so we have set a **Scope 1 Emissions Carbon Neutrality Target of *[20__]***.	
2. PURCHASED ELECTRICITY	• For **Scope 2** emissions, we aim to procure as much of our electricity from solar, wind, and other renewable forms of electricity generation. By pursuing a Renewables Power Purchase Agreement with the assistance of PASSHE and PSFEI, we are setting a **Scope 2 Emissions Carbon Neutrality Target of *[20__]***.	
3. INDIRECT CARBON EMISSIONS	• For **Scope 3** emissions, we acknowledge the limited control the university has over the commuting decisions of our community of 20,000 students and employees and our dependence as an institution on changes in transportation and vehicle technologies over which we have very little control. Consequently, we have set a **Scope 3 Emissions Carbon Neutrality Target of *[20__]***.	

Buildings & Energy

Vision

In the design, construction, renovation, and operations of campus buildings at West Chester University and in leased spaces beyond our North and South campuses, we will

1) work to effectively use and source energy, while supporting our educational mission,

2) assess our energy use and implement appropriate efficiency improvements,

3) investigate renewable sources of energy and rely on them to the greatest extent possible, and

4) identify means to reduce or offset those emissions that we cannot avoid.

In pursuing these strategies for assessing the sources and uses of energy on campus, we aim to

reduce to zero the carbon emissions associated with our on-campus, building-related energy consumption and our purchased electricity.

Background

West Chester University owns or leases and operates almost 4 million sq feet of building space to support its educational mission. This space provides safe, comfortable, and technologically up-to-date classrooms, laboratories, administrative offices, student housing, warehouses, and support services. In a typical year to heat, cool, and power this space, WCU uses over 100,000 mcf of natural gas, 8,000 gallons of heating oil, and 42,000 MWh of purchased electricity.

Over the past 12 years, the university has invested in energy efficiency upgrades in its buildings, adopted Sustainable Design Guiding Principles for new construction, invested in geo-exchange heating and cooling technology that now covers 52% of North Campus building space, decommissioned and razed a coal-fired boiler plant, purchased Renewable Energy Credits, and installed demonstration solar photovoltaic capacity to offset small but measurable amounts of carbon emissions from purchased electricity. In the most recent year for which data are available (FY 2019), total carbon emissions were 37% less than baseline year FY 2010 and per campus user emissions were down more than 40%.

Three-Year (2023, 2024, and 2025) *Goals and Strategies*

GOALS	STRATEGIES	COMMENTS / SUGGESTIONS
1. **Improve efficiency utilization of energy by 10%**	• Develop promotional and educational campaigns aimed at students and employees based upon instructional need and reflected in WCU's Energy Dashboard • Ensure that efficient energy use behaviors are incorporated into Brandywine seminars, Sustainability minor and pathway programs, the Sustainability Peer Educators program, and new student, employee, and faculty orientations • Create ongoing collaboration and mutual responsibility between Facilities energy managers and the Sustainability Council through the SC Buildings and Energy Committee	
2. **Improve energy efficiency**	• Conduct and publish a study to identify energy efficiency projects and upgrades, quantifying the potential costs and energy / dollar savings associated with each one • Establish a Green Fund as a collaborative effort between academic, administrative, and student organizations to identify the most effective investments in efficiency • Develop a plan for the replacement of carbon-intensive heating oil furnaces on campus with high efficient pulse-type natural gas furnaces or geo-exchange systems • Identify buildings with oil or gas hot water heaters for eventual upgrade to low- or no-carbon alternative technologies • Stipulate that yearly / long-term operational energy costs be added to the university's criteria for building design and contractor procurement	
3. **Increase renewable energy sourcing by at least 20% by 2025**	• Conduct a study of WCU buildings and grounds for suitability for placement of solar PV arrays or water heating systems including estimates of array / system sizes, cost, and carbon offsets • *(Expand installation of solar panel arrays on existing buildings and grounds)* • Develop plan for expansion of WCU's geo-exchange system with specific target years for increasing the % of campus building space heated and cooled with this technology • (Stipulate connection of any new building to the geothermal exchange system) • Negotiate a Renewable Energy Power Purchase Agreement, potentially in collaboration with other PASSHE universities, to cover 50% or more of WCU's annual electricity use • [generation of SRECs on campus from solar panels, generation of AECs (alternative energy credits) from our geo-exchange heating and cooling system]	
1. **Increase offsets for those emissions that cannot be avoided**	• Until a Renewable Energy PPA is in place, continue to purchase RECs for 30% of expected electricity use on campus • Apply for SRECs for existing and any new solar installations with savings invested in Green Fund	

Transportation

Vision

We wish to cultivate an engaged and informed campus community that embraces

safe, convenient, zero-carbon, and healthy transportation options.

Collectively, we work toward a university-wide commitment to decrease carbon-intensive commuting and travel.

Background

The pressing need to reduce greenhouse gas (GHG) emissions associated with transportation is evident, as nearly a quarter of all emissions, globally and in Pennsylvania are from this sector. At WCU, our transportation-related GHG emissions are an even higher percentage of the total (>40% of net emissions), as the suburban nature of our campus leads to significant commuting-related emissions. Multimodal solutions are required to address the challenge of commuting for students, staff, and faculty. We are committed to reducing emissions from our vehicle fleet and exploring carbon offsets for air travel to support student study abroad trips and faculty and staff engagement in professional activities. As we work to reduce GHG emissions and develop sustainable transportation initiatives, we will educate the campus community with the goal of empowering individuals so they can make smart and sustainable transportation choices.

Three-Year (2023, 2024, and 2025) *Goals and Strategies*

Note that some of these strategies will be years in the making, so we are identifying initial steps to be taken over the next three years.

GOALS	STRATEGIES	COMMENTS / SUGGESTIONS
1. Educate the campus community on mode shifts and sustainable transpo infrastructure to bring about cultural change	• Promote the benefits of ridesharing, car-sharing, carpooling, and biking options • Develop FYE modules on sustainability, including sustainable modes of transportation • Office of Sustainability interns assigned to run/organize/co-facilitate/be a presence at regularly-held and unique offerings of sustainability-related campus events	
2. Advance programs and policies that reduce carbon-intensive modes of travel	• Implement long-term travel offset programs for student and employee travel • Support transportation 'sharing' initiatives, including rideshare, bikeshare, and carshare • Increase the percentage of WCU fleet vehicles that are electric or alternative fuel vehicles • Support parking fee increases that cover the true cost of on-campus parking, while sharing the cost burden equitably • Build support for future WCU shuttle bus Request for Proposals containing mandatory alternative fuels clauses • Increase the number and availability of EV charging stations • Encourage public transit use, in part by building better commuting amenities including bus shelters	
3. Reduce commuting trips to campus	• Develop and advance alternative workweeks/remote work policies for university employees • Establish baseline data and then increase usage of carpool/rideshare/bikeshare by 10% increments annually • Maintain and expand university-funded shuttle bus service, including the Uptown Loop and Exton Station routes	
4. Engage locally and regionally to advance sustainable transportation initiatives	• Build greater representation on local councils by encouraging members of the WCU community to engage when opportunities arise • Work with the Transportation Management Association of Chester County (TMACC), the Delaware Valley Regional Planning Commission (DVRPC), and SEPTA on initiatives of mutual interest	

Learning & Academics

Vision

WCU's core mission is to educate students for the future, and the new climate reality will necessarily change how we educate as well as change the types of research and creative activities that inform and strengthen our pedagogy. We must ensure that WCU students understand the causes of the climate crisis, its unequal effects, and how to plan for resilience. Yet we also must make sure that students are equipped with the tools and abilities to solve these challenges: they must have class-based, experiential, and research opportunities for building communities and engaging in collaborative, transdisciplinary projects that allow them to identify and solve problems. We envision an engaged faculty-staff-student partnership model

Scholarly and creative activities play an essential role by providing venues to not only expand upon classroom-based learning, but also to provide

an action-oriented pedagogy that allows students to directly address and raise awareness of sustainability issues.

Background

- 94 faculty have participated in the Brandywine Project out of approximately 900, or 10%. This effort has resulted in 79 new or revised syllabi; if each class were taught once with a class average of 30 students, this means that a minimum of approximately 13% of students would have been reached (2370 out of 17,669, using the Fall 2019 total headcount). Thus, more work on both the faculty and student sides remains to be done.

- While we have a good list of sustainability-focused and -related courses, we lack information on what our campus residents – students, faculty, and others – know about sustainability.

- In recent years, WCU has undergone general education reform, creating additional opportunities for sustainability education across the curriculum: the gen ed pathway and the First Year Experience programs.

- The larger context of Educating for Sustainability in academia is reflected in WCU's current discussions of how and where sustainability programming should be located and enacted, conversations that will need to continue between faculty, administration, students, and bodies charged with overseeing curricula on campus.

- Several initiatives have been established to promote the WCU campus and community as a laboratory, participant cohort and audience for scholarly and creative activities related to sustainability: Campus Sustainability Grants program, continuous support of the Gordon Natural Area, highlighting sustainability projects with the Brandywine "B" at Research Day, and curation of a digital record of sustainability activities in the Digital Commons including posting recordings of the Sustainability Research & Practice Seminar Series.

Three-Year (2023, 2024, and 2025) *Goals and Strategies*

GOALS	STRATEGIES	COMMENTS / SUGGESTIONS
1. Strengthen opportunities for learning about sustainability within current curricula	• Monitor sustainability pathway courses to ensure health and integrity of sustainability pathway • Launch and grow interdisciplinary sustainability minor • Include sustainability lessons or activities in all FYE sections • Conduct an annual campus-wide survey of sustainability beliefs, knowledge, and actions	
2. Strengthen sustainabilityeducation via programs that bring together diverse constituencies in non-classroom spaces	• Expand the Brandywine Project Workshops, especially to external participants and to local administration • Launch and develop the Sustainability & Social Justice Leadership Themed Housing program and Living-Learning Community • Support and expand the Sustainability Peer Educators program	
3. Provide opportunities for sustainability to inform the implementation of new policies and best practices	• Support the Sustainability Research & Practice Seminar • Promote and support activities that recognize the West Chester, Exton, and Philadelphia campuses as Living Laboratories and Creative Canvases • Expand contributions to the Digital Commons Sustainability Research and Creative Activities Archive • Create and make accessible to the campus community a database focused on campus operations and academics	
4. Support research and creative activities that focus on environmental, social, and economic sustainability	• Support Campus Sustainability Research and Creative Activities Grants programs • Expand the Research Day "Brandywine b" recognition program with a competitive annual award • Support, possibly with Alternative Work Assignments, submission of grant proposals to external funders to support sustainability research	

Zero Waste

Vision

West Chester University aims to conserve material and energy resources as effectively as possible so that we send solid waste to landfills only after working to

redesign, reduce, reuse, repurpose, repair, compost, and recycle materials used on campus.

Our approach emphasizes education of all members of our community, strategic decisions about purchasing, paperless administrative procedures, appropriate on-campus infrastructure and signage, strategic partnerships with waste and recyclables haulers, and sustainable handling of materials the university can no longer use productively.

Background

West Chester University has used several strategies over the decades for disposing of materials responsibly and recycling those materials that can be. In the 1990s and early 200s, waste and recyclables hauling was managed in-house with university-owned vehicles and staff dedicated to effective recycling using a multi-stream approach with paper, cardboard, metals, and plastics collected separately.

With a transition to contracted hauling, WCU shifted to single-stream recycling. In doing so, we have emphasized the use of state-of-the-art Materials Recovery Facilities (MRFs) and disposal of solid wastes in effectively managed landfills that capture greenhouse gases and use them for heating and the generation of electricity. The university's Custodial Department and University Student Housing play a major role in waste and recyclables handling.

Other materials – electronics, hazardous and radioactive wastes, and special materials such as pallets – are handled by various offices on campus, including Information Services & Technology (IS&T), Environmental Health and Safety, and the Facilities Grounds Department.

While financial constraints mean offices on campus aim for efficiency and the minimization of waste, the concept of "zero waste" – with its emphasis on a hierarchy of approaches that begins with rethinking and redesigning campus systems to avoid consumption – is not understood broadly. The Office of Sustainability in Fiscal Years 2021 and 2022 initiated Zero Waste audit and visioning exercises that will contribute to the development of a full Zero Waste Plan for the university during the timeframe of this Climate and Sustainability Action Plan.

Three-Year (2023, 2024, and 2025) *Goals and Strategies*

GOALS	STRATEGIES	COMMENTS / SUGGESTIONS
1. Develop Zero Waste Guidelines for campus operations	• Create a campus Zero Waste Plan and promote its purpose and strategies to staff, faculty, and students • Incentivize use of the university's Environmentally Preferred Purchasing program • C. Monitor materials flows on campus, including quantities of solid waste and recyclables	
2. Strengthen campus systems for repairs, reuse, and repurposing of university property	• Reestablish surplus materials programs • Conduct annual Move Out day clothing, furniture, and household products collection drives • Establish a Rams Thrift Shop for Zero Waste education and reuse, repair, and repurposing of materials • Develop systems for handling as many electronic and hard-to-recycle materials as feasible • Consolidate waste and recyclables handling under a single hauler	
3. Use the Zero Waste Plan and the principles that shape it to educate the campus community	• Develop annual Zero Waste Summits for the campus community • Incorporate Zero Waste education in Brandywine Project Staff, Faculty, and Student Workshops • With Facilities staff, design effective messaging about purchasing, reuse, repurposing, composting, and recycling at WCU	

Food Systems

Vision

West Chester University's community of students, faculty and staff will support and cultivate

a food system that is ethical, equitable and environmentally sustainable.

Through our individual choices and collective influence, we will effect positive change in: reducing food waste; serving food that is sustainably and ethically produced; securing living wages for workers across the food system; and ensuring equitable access to healthy food. We will also integrate education about sustainable food systems across campus; throughout signage, co-curricular activities, campus events, increased staffing and academic courses.

Background

- The challenges in cultivating an environmentally sustainable food system are vast:
  - Food is now commonly transported from all corners of the globe to reach our plates, bearing a high carbon price tag.
  - On average 25% of prepared food is wasted each year in the US, ending up in landfills.
  - Conventional agriculture and animal agriculture are leading causes of deforestation, climate change, and water pollution.
- Wide gaps exist in the social and economic sustainability of our food system:
  - Those working in agricultural production and food service, who are disproportionately immigrants and people of color, frequently endure poor working conditions and are not paid a living wage.
  - In recent years, 10-15% of Americans have experienced food insecurity.
  - Food insecurity is more prominent among college students than the general population. In 2018, approximately 32% of WCU students reported experiencing food insecurity.
- With guidance from the 2013 CAP WCU has made progress through efforts such as: composting pilot projects, reusable to-go containers in the dining hall, recycling waste oil, and locally sourced, fairly traded, and organic food purchases. Other efforts have also addressed food insecurity among WCU students, including the establishment of the WCU Resource Pantry.
- Moving forward it is imperative that WCU develops and supports a food system that is socially, economically, and environmentally sustainable.

Three-Year (2023, 2024, and 2025) *Goals and Strategies*

GOALS	STRATEGIES	COMMENTS / SUGGESTIONS
1. **Develop and carry out plans to reduce food waste, food packaging waste, and disposable plates, cups and utensils.**	• Work with staff in facilities, dining and Aramark to implement USEPA food recovery hierarchy initiatives, including: 　○ source reduction through smaller portions, 　○ food recovery efforts on campus, and 　○ composting campus-wide. • Remove cost barriers for reusable plates, cups and cutlery. • Expand incentives for bringing reusable cups / containers.	
2. **Increase availability and awareness of sustainably and ethically sourced food.**	• Increase sustainably and ethically sourced options in the dining hall, Sykes food court, and PODs through partnerships with local farms and more meatless options. • Create signage about the sustainable and ethical aspects of food choices. • Develop and promote sustainable and ethical options on catering menus.	
3. **Expand university programs to increase equity in access to healthy food.**	• Reach students in need through effective food recovery efforts. • Support university gardens with staffing, including a campus gardens manager, increase fresh produce donations to students. • Implement new programs, including Swipe Out Hunger, to expand access to healthy food in ways that honor students' dignity.	
4. **Ensure workers throughout the food system earn a living wage.**	• Work with university officials and Aramark to understand current gaps in pay and develop a plan to increase wages for student and non-student workers. • Increase purchasing of food from ethical businesses, utilizing established designations such as "fair trade."	
5. **Integrate education about sustainable food systems across campus.**	• Create clear, universal signage about: what can be composted and where, how food packaging can be recycled/composted/or landfilled. • Educate students -- in FYEs, residence halls, and the dining hall -- about sustainable food systems at WCU.	

Purchasing

Vision

West Chester University will promote and practice the

procurement of products and services made in environmentally, socially, and economically sustainable ways.

Where compatible with the university's educational mission and strategic plan, we support producers who reflect our commitment to sustainability, including those that are fair trade certified, B Corporations, local and small businesses, and supportive of regenerative and organic agriculture.

Background

- Decentralized purchasing practices on campus, with decisions made by hundreds of staff members, faculty, and students.
- Systemwide and Commonwealth policies govern purchasing practices and decisions (see https://www.wcupa.edu/policies/documents/Purchasing%20Policy.pdf and https://www.wcupa.edu/_information/AFA/fbs/proc/po/quickRef.aspx).
- An Environmentally Preferred Purchasing Program already exists at West Chester University.
- Some notable purchasing practices include standard computer equipment that meets US EAP Electronic Product Environmental Assessment Tool (EPEAT) standards and Dining Services Contractor purchases of some locally-sourced, organic, and fair-trade foods.

Three-Year (2023, 2024, and 2025) *Goals and Strategies*

GOALS	STRATEGIES	COMMENTS / SUGGESTIONS
1. **Consider Zero Waste principles in making most or all purchasing decisions**	• Develop and document the implementation of operational processes that reduce the use of physical materials. Examples of such processes include the conversion of hardcopy administrative forms to digital, the use of plastic liner bag-free waste and recycling collection, and the operation of an effective and widely used surplus property program.	
2. **Increase procurement of sustainably sourced foods for campus dining facilities**	• Promote plant-based dining options and the Eat-a-Plant program so that plant-based foods make up and increasing percentage of all foods purchased for campus dining outlets. • Qualify as a Fair-Trade Campaign campus and increase on an annual basis the percentage of foods purchased that provide living wages to producers, healthy employment conditions for workers, and sustainable production and distribution.	
3. **Purchase energy efficient, recyclable office technology, equipment, and supplies**	• Support a transition to managed print services (shared Multi-Function Printers) and away from individual desktop printers. • Promote the Environmentally Preferred Purchasing program to all WCU staff, faculty, and students with purchasing decision-making responsibilities. • Develop and implement a plan to replace as many campus vehicles and grounds equipment as is practicable with electric versions.	

Green Spaces

Vision

Green spaces are an integral part of the campus environment and are directly correlated to the recruitment, retention and education of our students. As a living laboratory and creative canvas, green spaces, such as the Gordon Natural Area and campus organic gardens, provide educational and aesthetic value along with critical ecosystem benefits. Our vision is to increase the campus urban forest diversity and canopy cover to

maximize carbon sequestration, supportive habitat for plant, insect, and animal species, storm water management, and other environmental benefits.

Background

- WCU participates in the Tree Campus Higher Education program and ArbNet (an international community of arboreta) and has a Landscape Master Plan identifies areas on campus where reestablishment or expansion of minimally landscapes spaces and native Eastern Deciduous Forest habitat should occur.
- The Grounds Department of the university's Facilities Division provides support for realizing goals identified by the Campus Tree Committee of the Sustainability Council.
- Faculty from the Geography and Planning Department have conducted tree census exercises and analysis of economic and environmental benefits attributable to campus trees.
- Natural and green spaces on campus are used by faculty and students from every College in the university for teaching, research, and recreation.

Three-Year (2023, 2024, and 2025) *Goals and Strategies*

GOALS	STRATEGIES	COMMENTS / SUGGESTIONS
1. Increase the tree canopy on North and South campuses	• Annually assess the coverage of West Chester University's tree canopy • Increase the campus tree replacement policy from two-for-one tree removed to three-for-one • Develop ten-year plan to attain ArbNet Level III arboretum status	
2. Promote the concept of WCU's campus as a "living laboratory and creative canvas"	• Install informational signs on campus that highlight ecosystem functions of trees, minimally landscaped spaces, and stormwater management facilities • Develop incentives for faculty and students to use campus green spaces in teaching, research, and creative activities • Connect efforts to manage green spaces on campus to social sustainability, environmental justice, and equity	
3. Expand areas of campus that support diverse plant and animal species populations	• Pursue the "meadowfication" of green spaces on campus to support diverse bird, insect, animal, and plant species • Promote familiarity with and support of West Chester University's Landscape Master Plan	