



Council Members Present (via Zoom):

Bob Reuning — Interim Vice President & Chief Administrative Officer (Chair)

Scott Lupin — Assoc Dir., Environmental Safety, Sustainability & Risk; Director, Office of Sustainability Ann

Tonggarwee — Deputy Chief of Staff, Office of the President

Bryan Quinn — Director of Technical Operation, Department of Electrical & Computer Engineering

Maureen Kotlas — Executive Director, Environmental Safety, Sustainability & Risk

Colleen Wright-Riva — Assistant Vice President, Division of Student Affairs

Meredith Gore — Professor, Department of of Geographical Sciences

Stephanie Yearwood — Professor, Environmental Science and Technology

Mark Addy — Executive Director, Systems and Networking, Division of Information Technology

Susan Corry — Director, Engineering and Energy, Facilities Management

Thomas McMullen — Special Assistant to the Provost, Facilities Management

Julia Ethan — Graduate Student Representative

Anushka Tandon — Undergraduate Student Representative

Guests Present:

Javiera King — Executive Assistant, Division of Information Technology Katie Rotramel — Project Manager, Grand Challenges Program

Meeting start time: 12:00 pm

Meeting Highlights

Introductions — B. Reuning

Bob Reuning welcomed returning and new Council members including Anushka Tandon- Undergraduate Student Representative, Julia Ethan- Graduate Student Representative, Dr. Meredith Gore- Faculty Representative, and Dr. Stephanie Yarwood- Faculty Representative. Bob explained his role as Interim Vice President & Chief Administrative Officer, replacing Carlo Colella who retired from his role on September 30, 2024.

Sustainable UMD Progress Summary — S. DeLeon and H. Pham

The Office of Sustainability presented on annual progress in calendar year 2023 (Appendix A). Sally DeLeon drew linkages between the Fearlessly Forward strategic plan, the Council's six sustainability goals, and the United Nations Sustainable Development Goals (SDGs). She also explained state and university policies that overlap with Council goals, pointing to the Maryland Department Environment's new Building Energy Performance Standards (BEPS).

Ha Pham presented on sustainability metrics from 2023. She conveyed that the upcoming Climate Action Plan 3.0 (CAP 3.0) includes existing strategies for achieving carbon neutrality and developing new programs such as a Sustainability Literacy Assessment for students. Sally DeLeon emphasized that UMD works to overhaul its Climate Action Plan at least every five years as a part of its participation in the Climate Leadership Network (originally the President's Climate Commitment). Although CAP 3.0 is not yet approved, new web pages created by the Office of Sustainability including climate resilience, climate emotions, climate justice, and climate research are meant to serve as resources concerning climate change.

Metrics surrounding progress under each council goal were reviewed by Ha Pham, with some key highlights listed below:

- Carbon Neutrality: 57% reduction in MTCO₂e in 2023 compared to 2005 baseline
- Smart Growth: Nine carbon neutral buildings have been constructed from 2019-2023
- Water use: 15% reduction in potable water consumption compared to 2022
- Waste minimization: Institutional recycling rate of 91% and individual recycling rate of 46%
- Local and global impact: 89% reduction in total paper purchasing in 2023 compared to 2007
- Education for sustainability: The Office of Sustainability hosted 59 events, engaging over 3,000 students

Highlights from the previous year were also presented. These include UMD's ranking of 7th in sustainability related research and 5th in waste management through the Association for the Advancement of Sustainability in Higher Education (AASHE)'s Sustainable Campus Index. It was also highlighted that the new chemistry building on campus is in the process of obtaining LEED certification.

Post-presentation, Sustainability Council members shared personal reflections on campus sustainability progress.

Sustainability Fund FY24 Annual Report — T. Brinks

Taylor Brinks presented the Sustainability Fund Annual Report (Appendix B) for fiscal year 2024 (FY24). A brief history of the fund's inception and the fee increases were reviewed, this year being the final of a

three year phased increase to \$30 per year per full-time undergraduate student. Taylor summarized inputs and expenses in the Student Sustainability Fee account, highlighted a number of awarded projects, and reminded the Council about updates to the Sustainability Fund by-laws that were approved last year. These updates include the addition of multi-year funding and qualifying criteria for research projects. Updates to the SustainableUMD website were also reviewed, which involved the creation of separate web pages for the Sustainability Fund, Mini-Grant, and other funding opportunities.

Comparing FY24 and cumulative fund activity showed that the average award from FY24 was over two times the cumulative average from FY11-FY24, and this trend is expected to continue with the addition of multi-year projects to the by-laws. The estimated amount of funds available for FY25 is \$1.1M.

Open Forum- B. Reuning

The discussion included an explanation of why only 13 of the 21 sustainability fund proposals from FY24 received funding and the deficits making those projects ineligible, including the total amount of the requests, unclear research goals, and scopes that did not align well with the criteria. There were also a number of topics suggested for future Sustainability Council meetings, including fleet electrification, NextGen progress, infrastructure improvements, future requirements from the state including BEPS, university grant funding for solar panels, artificial intelligence (AI) and its power requirements, a centralized high efficiency data center for the university, sustainable aviation, and sustainability literacy.

Adjourn 12:55 PM

Appendices:

Appendix A: (2024) Progress Report to the Sustainability Council - CY2023

Appendix B: 2024 Sustainability Fund Annual Report

SustainableUMD Progress Summary

October 7, 2024

Ha Pham - Sustainability Coordinator

Sally DeLeon - Sustainability Manager



OVERVIEW:

Review of Sustainability Goals

- UN Sustainable Development Goals
- Sustainability in Fearlessly Forward
- Campus Sustainability Goals

Sustainability at UMD

- General Update
- Progress by Campus Goals

- Highlights from 2023

- AASHE's 2024 Sustainable Campus Index
- Grand Challenges Grants
- New Chemistry Building Dedicated
- First Year Book 2024





FEARLESSLY FORWARD

Released in February 2022, the new University Strategic Plan, *Fearlessly Forward*, includes sustainability as a key theme. Divided into four principles, the strategic plan is easily connected to campus sustainability goals and international sustainable development frameworks.

- We reimagine learning.
- 2. We take on humanities grand challenges.
- 3. We partner to advance the public good.
- 4. We invest in people and communities.



UN SUSTAINABLE DEVELOPMENT GOALS



































SUSTAINABILITY IN FEARLESSLY FORWARD

01

We reimagine learning

UMD plans to reimagine learning and teaching — this includes developing "the potential of our campus as a **green**, connected living-learning environment that is open and accessible to the global community" and supporting "indoor and outdoor spaces on campus to advance learning, inspire discovery, and activate creativity."







02

We take on humanities grand challenges

UMD defines "humanity's grand challenges" as "climate change, social injustice, global health, education disparities, poverty, and threats to our democracy." All objectives and initiatives within this principle are inherently sustainable. The University's **Climate Action Plan** is listed as the first strategic initiative for accomplishing this principle.







SUSTAINABILITY IN FEARLESSLY FORWARD

03

We partner to advance the public good

"Our future is tied to and interconnected with our local, state, national, and international partners. We will create and sustain partnerships that allow our research to have impact locally and globally, our education to prepare students for civic engagement and impact, and our service to create solutions for a more equitable, sustainable, and resilient world."





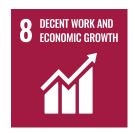


04

We invest in people and communities

UMD aims to lead the nation in living a commitment to equity, diversity and inclusion in all that we do by investing in "people, their well-being and advancement, and the conditions that support their ability to fully participate and thrive in our community, state and world." Objectives specifically address sustainability (equity, financial-security, housing, etc.).







SDG 9: Industry, Innovation and Infrastructure

Example SDG Targets:

- Target 9.1: Develop quality, reliable, sustainable & resilient infrastructure to support economic development & human well-being, with a focus on affordable & equitable access for all

Connection to UMD Programs:

- Maryland Energy Innovation Institute
- Greater College Park & CP-CUP
- School of Architecture, Planning & Preservation
- Small Business Development Center
- Do Good Institute



SDG 12: Responsible Consumption and Production

Example SDG Targets:

- Target 12.2: By 2030, achieve the sustainable management and efficient use of natural resources
- Target 12.5: By 2030, substantially reduce waste generation through prevention, reduction, recycling & reuse

Connection to UMD Programs:

- Terp Farm, Farmers Market, & Dining at UMD
- College of Agriculture and Natural Resources
- Recycling & Solid Waste Unit
- Regulated Hazardous Waste Program
- Engineering Sustainability Store



SUSTAINABILITY COUNCIL GOALS



Carbon Neutrality

100% carbon neutral by 2025 compared to 2005, site energy conservation measures, expansion of renewable sources, zero emission vehicle expansion



Education for Sustainability

Formal and informal opportunities for students to gain knowledge/ skills and to collaborate with staff/faculty on solutions



Local and Global Impact

Partner to further sustainability in Maryland and beyond, encourage sustainable procurement at UMD, support green dining programs





Alternative transportation, environmental stewardship in landscape, high performance building and utility design



Sustainable Water Use

Reduce purchases of potable water, expand harvesting and reuse, responsibly manage stormwater to protect the Chesapeake Bay



Waste Minimization

Divert 75% from the landfill, reduce solid waste generated per person 1% annually, increase cleaning and waste sorting

STATE & UNIVERSITY POLICIES — SUSTAINABILITY

Carbon Neutrality

- Climate Action Plan (2009, 2015, 2023)
- Work Groups (2013, 2015, 2019)
- MD Department of General Services Energy Executive Reporting (2018, 2021)
- NextGen Energy Program
- Climate Solutions Now Act (2022)
- Executive Order to Advance Maryland's Pollution Reduction Plan (2024)

Smart Growth

- Facilities Master Plan (2011, 2017, 2023)
- Design Criteria Facility Standards (DCFS)
- High Performance Buildings Act (2010)
- Sustainable Transportation Policies
- Building Energy Performance Standards (2024)

Local & Global Impact

- Environmentally Preferable Procurement Policy
- Cool Food Pledge
- Hunger-Free UMD

Waste Minimization

- Maryland Recycling Act (1988)
- Maryland Composting Law (2023)

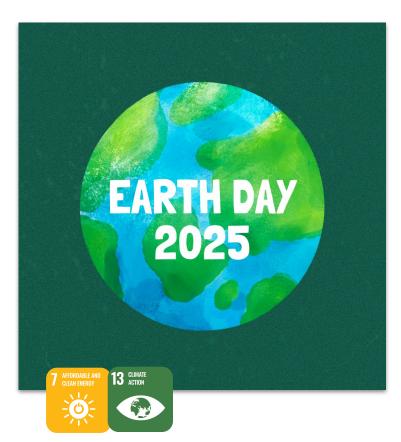
Education for Sustainability

- University Strategic Plan (2022)
- Work Group (2014)

Sustainable Water Use

 Sustainable Water Use and Watershed Report (2014, 2022)





"Our global fight against the climate crisis is far from over.

UMD will accelerate its goal to become a net carbon-neutral campus by 2025.

It is my hope that these measures will help inspire every one of us to commit to the reduction of our greenhouse gas emissions for our planet and for our people."

> -- President Darryll J. Pines (Inaugural Address, 2021)



CLIMATE ACTION PLAN 3.0

- Climate Action Plan 3.0 (CAP 3.0) focuses on developing a few new programs and maintaining existing strategies to meet the University's accelerated carbon neutrality commitment.
 - CAP 2.0 was published in 2015. A minor update -- CAP
 2.1 -- was published in 2021.
- Strategies provided by key stakeholder units review.
 - Stakeholders include Facilities Management, Department of Transportation Services, academic units, and others.
- CAP 3.0 has been approved by the University Sustainability Council and will be launched by President Pines in Fall 2024.

SUSTAINABILITY PROGRESS UPDATE

The SustainableUMD Progress Hub dashboards are up-to-date with 2023 data.

Carbon Neutrality



100% Renewable purchased electricity

4% Reduction in greenhouse gas emissions from 2022

41,232 MTCO2e Of carbon offsets (22%)



Education for Sustainability

226 Sustainability minor enrollments

20 Certified Green Chapters

15 Certified Green Workspaces



Local and Global Impact

9% Increase in emissions reduction per plate

29% Cities certified Sustainable MD

39,034 lbs Produce from Terp Farm

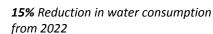
Smart Growth



2.18 million SQFT Green buildings added since 2010, 14% of total campus building space



Sustainable Water Use



199 Stormwater management facilities



Waste Minimization

91% Institutional diversion rate

46% Individual recycling rate

2,425 tons Of compost generated



Carbon Neutral

Goal

Achieve carbon neutrality by 2025

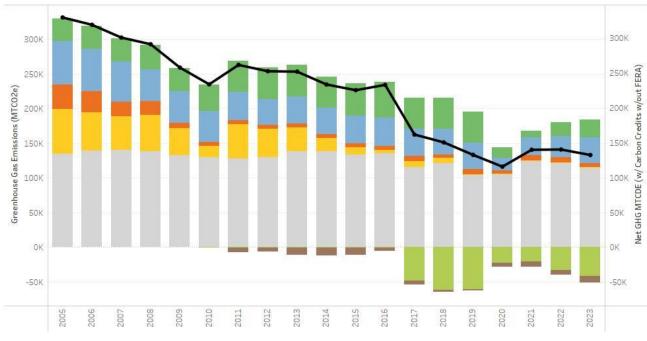
141,822 MTC02e net greenhouse gas emissions

57% reduction compared to 2005 baseline (Net)

4% reduction

compared to 2022 data (Net)

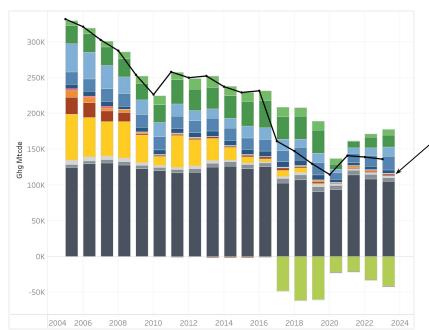
University of Maryland Greenhouse Gas Emissions Metric Tons of Carbon Dioxide (MTCO2e)



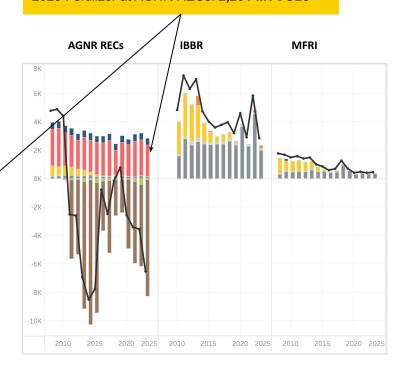


Carbon Neutral

Main Campus, College Park



2023 Fertilizer at College Park: **59 MTCO2e** 2023 Fertilizer at AGNR RECs: **2,201 MTCO2e**



Source

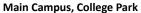
- Study Abroad Air Travel
- Directly Financed Air Travel
- Student Commuting
- Faculty & Staff Commuting
- Direct Transportation

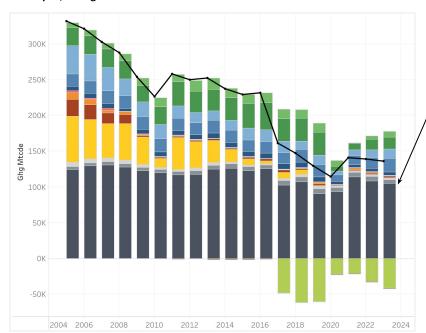
- Fertilizer & Animals
- Refrigerants & Chemicals
- Solid Waste
- Purchased Electricity
- T&D Losses

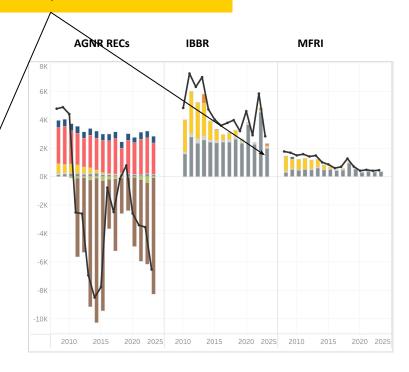
- Other On-Campus Stationary
- Combined Heat and Power Plant
- Non-Additional Sequestration
- Carbon Offsets

Carbon Neutral

2023 Stationery Fuel at College Park: **4,913 MTCO2e** 2023 Stationery Fuel IBBR: **1,990 MTCO2e**







Source

- Study Abroad Air Travel
- Directly Financed Air Travel
- Student Commuting
- Faculty & Staff Commuting
- Direct Transportation

- Fertilizer & Animals
- Refrigerants & Chemicals
- Solid Waste
- Purchased Electricity
- T&D Losses

- Other On-Campus Stationary
- Combined Heat and Power Plant
- Non-Additional Sequestration
- Carbon Offsets

Smart Growth

Goal

Campus development, new construction and major renovations that minimize environmental impacts, embraces the concepts of smart growth and sustainable design and supports connectivity.



9 Carbon Neutral New Development Buildings.

26 Green Buildings on Campus between 2010 - 2023.

2.18 million SQFT green buildings added between 2010 - 2023, 14% of total campus building space.

13,559 Beds on- or near to campus, 8% decrease compared to 2022.

44.30% of students live on or around campus, 9% decrease compared to 2022.







Smart Growth

290K Rides on shared mobility services.

5,895 Smart commute participants, 10% increase compared to 2022.

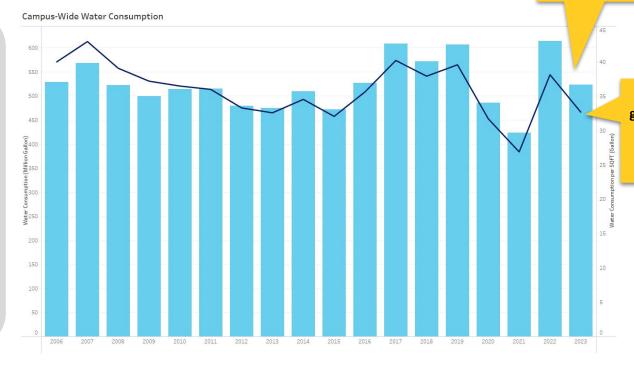


Goal

Reduce purchase of potable water, seek opportunities and expand its harvesting and reuse of water, and responsibly manage stormwater to protect the Chesapeake Bay and its tributaries.







32.66 gal/sqft, 14% reduction from 2022

Sustainable Water Use

199 STORMWATER BMPS ON CAMPUS

333 RECEIVED STORMWATER TRAINING



Waste Minimization

Goal

Divert a minimum of 75% of its total solid waste from landfills and seek opportunities to further reduce waste generation.

2,425

TONS OF COMPOST DIVERTED FROM LANDFILLS

18.5K

POUNDS DIVERTED FROM THE LANDFILL THROUGH TERP

TO TERP REUSE STORE

46%

INDIVIDUAL RECYCLING RATE

91%

INSTITUTIONAL RECYCLING RATE (MRA & Non-MRA

MATERIALS)





Local and Global Impact

Goals

Create partnerships and other opportunities that further sustainability and smart growth principles and policies with state and local communities, businesses and suppliers, agencies and organizations.





LEADERSHIP IN GREEN PURCHASING **\$2** million spent on green cleaning products, around 77% of total cleaning purchases.

89% reduction in total paper purchasing in 2023 compared to 2007.

COOL FOOD PLEDGE

8.76% increase in per plate emissions in 2023 compared to 2017.

SUPPORTING LOCAL SUSTAINABILITY

23 Partnership in Action Learning in Sustainability Courses offered.

Education for Sustainability

Goal

Provide students with educational opportunities that will advance their knowledge, skills and awareness of environmental stewardship and sustainability.





59

ON-CAMPUS EVENTS, INCLUDING CAMPUS SUSTAINABILITY MONTH CELEBRATION, SWEEP THE CREEK.

3,309

CAMPUS MEMBERS ENGAGED

816

FIRST YEAR STUDENTS
TAUGHT ABOUT
SUSTAINABILITY
40 PRESENTATION DELIVERED
IN 2023-2024 BY STUDENT
ADVISORS







GREEN WORKSPACE PROGRAM & SUSTAINABILITY BADGE

15 CERTIFIED GREEN WORKSPACES

143 SUSTAINABILITY BADGES EARNED



AASHE's 2024 Sustainable Campus Index

UMD has received notable recognition for its sustainability efforts in research and waste management, according to the Association for the Advancement of Sustainability in Higher Education (AASHE) 2024 Sustainable Campus Index.

UMD tied for **7th place for sustainability-related** research.

In addition to its research prowess, UMD ranked **5th for waste management**.

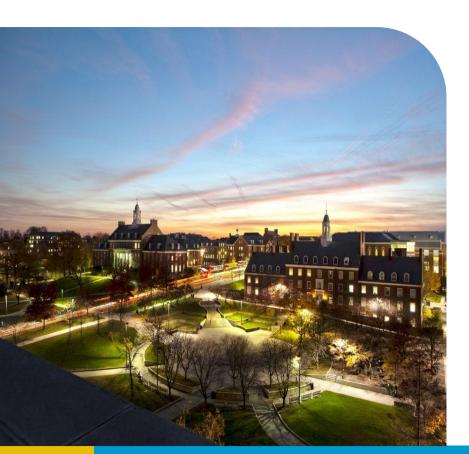












Next Gen Energy Program

A major initiative by the UMD to modernize and improve its campus energy system, was approved by Maryland Board of Public Works on May 2024.

Grand Challenge Grants

Grand Challenges Grants have made significant strides between October 2023 and June 2024, engaging **over 32,000 individuals** both on campus and externally.

7 funded institutional & team projects address climate change and environmental concerns, including education, Food-Energy-Water (FEW) nexus, plastic waste, weather forecasting...

For example, Climate Resilience Network project:

- Funded over 40 undergraduate students for summer internships and semester research jobs.
- Supported 20 high school students through a high school hub program.

03
Institutional
Grants

06
Impact
Grants

41
Team & Individual Project
Grants







New Chemistry Building

New Facility: University of Maryland has inaugurated a 105,000-square-foot Chemistry Building.

Investment: \$132 million dedicated to enhancing research capabilities.

Includes advanced facilities for research projects, including energy conversion and technologies for sustainability.

On the progress of obtaining LEED Certification.





POVERTY, BY AMERICA

ONE OF THE
NEW YORK TIMES
NOTABLE BOOKS
OF THE YEAR

#1 NEW YORK TIMES BESTSELLER

FIRST YEAR BOOK 2024

Students

Students may pick up a copy of the book at the Adele H. Stamp Student Union at the Information Desk.

Faculty and Staff

Faculty and staff may pick up books in front of the Office of Undergraduate Studies, 2110 Marie Mount Hall.

MATTHEW DESMOND

PULITZER PRIZE-WINNING AUTHOR OF EVICTED



YORKER





sustainability fund

FY24 ANNUAL REPORT

Taylor Brinks, Office of Sustainability



SUSTAINABILITY FUND HISTORY

- Undergraduate students advocated for sustainability fee in 2007
- Fee collection began in fall 2009 at \$4/full-time undergraduate/year
- The Sustainability Fund was established in 2010
- Mini-Grant program started in 2014 to provide smaller grants, managed by SGA Sustainability Committee





185 +

PROJECTS HAVE RECEIVED FUNDING SINCE 2011.



Repurpose Farm Plastic, FY22



\$4.2M +

IN FUNDING HAS BEEN AWARDED TO 187 PROJECTS SINCE THE FUND STARTED IN 2011.



Mobile Sustainability Outreach Center, FY21



\$30/year

THE STUDENT
SUSTAINABILITY FEE
FOR FULL-TIME
UNDERGRADUATE
STUDENTS IN FY25



Community Learning Garden ADA-Accessible Raised Bed Renovation, FY23



FY24 ACTIVITY REPORT

Sustainability Fund	Totals
 Student Fee Revenue (estimated): 	+\$683,284.58
 Carry-forward from FY23 (estimated): 	+\$696,373.83
Mini-Grant Transfer	-\$20,000
 Undergrad Commuter Offsets Expenses 	-\$88,178
 Funds transferred for approved projects 	-\$493,862.49*
 Returned Funds from Closed Accounts 	+\$57,086.12

Current Fund Balance

\$689,243.37**

^{*}Some transfers for projects occurred after the end of FY24 because of project delays. Approved projects totaled \$605,221.59.

^{**}This does not include carbon offsets purchased for undergraduate student commuting in July 2024.



PROJECTS APPROVED IN FY24

RESEARCH

Getting at the Root of Mangrove Resiliency

Algal Terp Scrubber

Incorporating Students in the Evaluation of Insect Feed as a Viable Methane Mitigating Supplement for the UMD Dairy

Maryland Agrivoltaic Demonstration for Research, Education, and Outreach

IoT-enabled, a hyper-local stormwater living laboratory at UMD

EDUCATION

DSA Sustainability Collaborative

Arboretum Summer Internship

University Libraries Graduate Assistantship Proposal

OPERATIONS

Native Biodiversity - An Undergraduate Outdoor Classroom

Bike and Scooter Parking Expansion Plan

ENES 100 School Store

Terrapin Works - PLA Scrap Stock Sheet Mold for Capstone

IBBR Riparian Habitat Restoration

FY24 AND CUMULATIVE FUND ACTIVITY

Sustainability Fund Activity	FY24	All Years (FY11-24)
Proposals received	21	397
Funds requested	\$ 1,807,698.17	\$13,456,569.66
Grants awarded	13	187
Funds awarded	\$605,221.59	\$4,262,979.11
Average award	\$46,555.51	\$ 22,785.98

RECENT PROJECT HIGHLIGHTS



Native Biodiversity - An Undergraduate Outdoor Classroom (FY24)

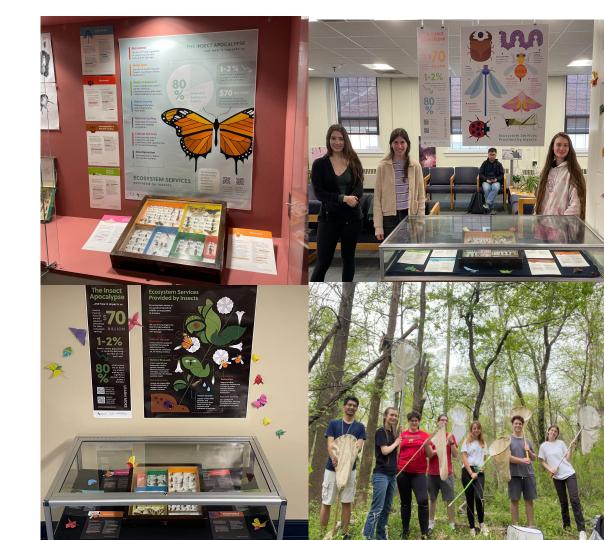
UMD Golf Course





Educating and Empowering Students on the Importance of Insect Biodiversity in Sustainability (FY23)

Department of Entomology





Maryland Agrivoltaic Demonstration for Research, Education, and Outreach (FY24)

University of Maryland Extension





ENES 100 School Store (FY24)

Department of Engineering





DSA Sustainability Collaborative (FY24)

Division of Student Affairs



THIS YEAR (FY25)



Sustainability Fund		Totals
•	Student Fee Revenue (estimated):	+\$837,900.00
•	Carry-forward from FY24 (estimated):	+\$689,243.37
•	Reserve for Mini-Grant	-\$20,000
•	Reserve for Undergrad Commuter Offsets	-\$150,000
•	July 2024 Purchased Offsets (estimate)	-\$185,500

Available for Grants in FY25 (estimated)

\$1,171,643.37*

^{*}This number excludes the remaining funds that need to be transferred for FY24 projects that have been approved but not yet funded.



UPDATES TO BY-LAWS

Multi-year funding

- Projects can request funding for up to 3 calendar years
- May include projects that require more than 1-year to execute; and/or ongoing projects considered key to campus sustainability by the SFRC & Sustainability Council
- May request lump sum funding or partial funding each year

Research Criteria

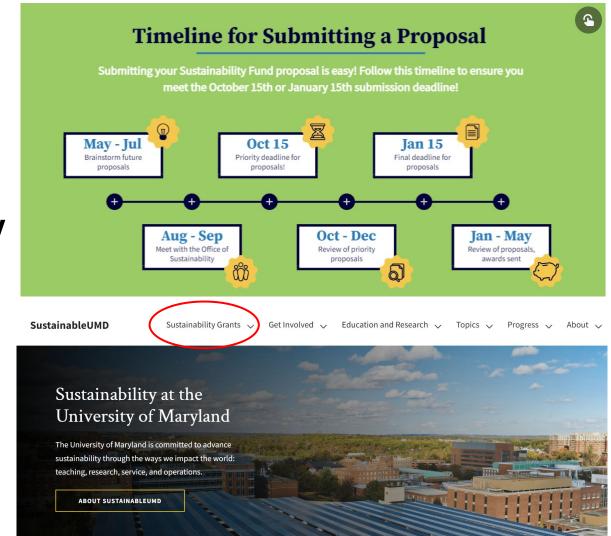
- Significant promise of having a direct impact on campus. Either
 the work or the fruits of the work can and will be implemented to
 make an impact on university sustainability goals (i.e. excludes
 theoretical, or experimental work). Since climate change is a
 global phenomenon, research involving the advancement of
 climate science may be supported.
- 2. Applicants should write the grant application in terms of real-world applications and outcomes.
- All work related to the grant should be performed on UMCP campus, one of its satellite facilities, and/or with extensive involvement of UMCP undergraduate students.
- 4. The proposer should identify other sources and amounts of funding for the project, including the entities providing the funding.
- 5. Verifiable letters of support should be provided from people with relevant expertise and not directly involved in the project.
- 6. The proposed project does not support a dissertation.



Updated Sustainability Fund Websites

Separate pages for:

- Sustainability Fund
- Mini-Grants
- Other Funding Sources





COMMUNICATIONS & PROMOTION

- 3D's letter to deans, departments, and directors
- Spotlights of grant recipients
 - Social media
 - Articles (Maryland Today!)
- Virtual information sessions





SustainableUMD Network Gathering

October 9, 2024 (This Wednesday!)

11am-1pm

Juan Ramon Jimenez Rm, Stamp

Lunch provided!

RSVP





QUESTIONS?

