

Council Members Present: (via Zoom):

Carlo Colella – Vice President for Administration (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
Eric Wachsman – Director, MD Energy Innovation Institute; Professor, Materials Science & Engineering
Giovanni Baiocchi – Associate Professor, Geographical Sciences
Yueming Lucy Qiu – Professor, Public Policy; Associate Dean, Research and Faculty Affairs (SPP)
Maureen Kotlas – Executive Director, Environmental Safety, Sustainability & Risk
Tom McMullen – Special Assistant to the Provost for Facilities
Colleen Wright-Riva – Assistant Vice President, Division of Student Affairs
Mark Addy – Executive Director, Systems and Networking, Division of Information Technology
Margaret Mothershed – Undergraduate Student Representative
Paromita Basak – Graduate Student Representative

Guests Present:

Javiera King – Administrative Coordinator, Office of the Vice President & Chief Administrative Officer
David Allen – Executive Director, Department of Transportation Services
Marta Woldu – Assistant Director of Sustainability Initiatives, Department of Transportation Services
Maddy Cirineo – Bicycle and Micromobility Program Coordinator, Department of Transportation Services

Meeting Highlights

Sustainable Transportation at UMD: A Persistent Journey towards a Climate Forward Transportation System – M. Woldu

Marta Woldu from the Department of Transportation Services (DOTS) presented an update on sustainable transportation initiatives at UMD (Appendix A). Key talking points include:

- DOTS tracks progress through the greenhouse gas emissions inventory. Other than the campus combined heat and power plant, transportation is one of the largest contributors to emissions on campus. DOTS undertakes strategies from the Climate Action Plan 2.0, including housing near campus, increased sustainable commuting, improving bike connectivity, and the Purple Line.
- Goals to decarbonize vehicles wherever possible, including the expansion of charging stations and approximately \$40 million to support ShuttleUM fleet bus electrification
- Gold rating for Bicycle Friendly University program; internal goals to reach platinum ranking
- Climate Forward Workforce: ShuttleUM Garden, Green Workspace program, Sustainability Badge participation, Sustainable Trip Planning
- Promote Smart Commute Tool Box by sharing incentives for participation, micromobility options, and other resources

Post-presentation discussion included questions about fees associated with the cost of EV charging, accessibility resources, bike lane projects, the Purple Line, and bus routes.

Sustainability Fund Proposals Presentation – M. Mothershed

Margaret Mothershed presented to the Council on the Sustainability Fund Budget and proposals (Appendix B). The Sustainability Fund Review Committee estimates having a revenue of \$650,000 and recommends funding for four proposals:

- *DOTS Bike and Scooter Parking Expansion Plan: (\$73,750)*
 - This project requests funding to expand bike and scooter parking around campus.
 - The Council discussed placement of parking spaces around campus. Through careful placement of new bike racks to road adjacent locations, it should encourage safer interactions between cyclists, pedestrians, and other vehicle users.
 - The Council **unanimously approved** this project proposal.
- *ENES100 School Store: (\$3,324)*
 - This project was submitted to support the creation of a store to recycle materials used in introductory engineering courses. Students can purchase and donate materials to the store to encourage waste minimization and reduce costs of introductory engineering courses.
 - The Council discussed treatment of potentially hazardous materials and the sustainability of the store after initial funding.
 - The Council **unanimously approved** this project proposal.
- *Getting at the Root of Mangrove Resiliency: (\$3,361.20)*
 - This project was submitted by a student to fund research on mangroves and global warming in Florida.
 - The Council had some discussion about qualifying student research. With the expanded bylaws discussing research, the Council concluded this project would apply.
 - The Council **unanimously approved** this project proposal.
- *Arboretum Summer Internship: (\$44,912)*
 - This project was submitted by the Arboretum and Botanical Gardens unit. The proposal included funding student internships throughout the summer, including hourly wages, parking permits, and meal plan costs. expenses related to give aways and attendance to a local conference.
 - The Council discussed the benefits of the meal plan and parking permit additions. Due to support from the Student Fund Review Committee for these budget items, the Council agreed to including these items in the proposal.
 - The Council **unanimously approved** this project proposal.

Open Forum

Adjourn 1:45PM

Appendices:

Appendix A: Sustainable Transportation at UMD: A Persistent Journey towards a Climate Forward Transportation System

Appendix B: Sustainability Fund Proposals Presentation



UNIVERSITY OF MARYLAND

sustainability
fund

GRANT RECOMMENDATIONS December 2023



Sustainability Fund Budget for FY24



FY24 General Info		Expenses	
Fund Balance as of July 1st*	\$284,410	Sustainability Mini-Grants**	\$20,000
FY24 Estimated Revenue*	~\$650,000	Carbon Offsets for Carbon Neutral Undergrad Commuting**	\$100,000
Proposals Received	13	Grants Issued to-date	\$143,271
FY24 Total requested so far	\$1,446,801.50	Today's Grant Recommendations	\$125,347.20
FY24 Requests still pending	\$409,878.20	Remaining Balance if recommendations are approved*	~\$545,791.80

*Estimated

**Maximum allowed



Projects Recommended for Funding



1. DOTS Bike and Scooter Parking Expansion Plan
2. ENES100 School Store
3. Getting at the Root of Mangrove Resiliency
4. Arboretum Summer Internship



DOTS Bike and Scooter Parking Expansion Plan



Requested: \$73,750

SFRC recommendation: \$73,750

Summary: Micro-mobility vehicle usage on campus has rapidly increased since the pandemic. DOTS is seeking funding to purchase and install 80 new bike racks, adding 640 more parking spaces to campus by the summer of 2026.



Submitted by: Marta Woldu and Valerie Goubeau; Assistant Directors of DOTS



DOTS Bike and Scooter Parking Expansion Plan



- Bike and Scooter usage on campus is at an all time high and has outpaced bike rack space
 - Improperly parked vehicles present accessibility issues
 - Expansion of bike infrastructure incentivizes students to decrease car use on and around campus
- Locations were narrowed through the use of a bike rack request form and heat map of improperly parked micro-mobility vehicles. Final choices will be made in consultation with Facilities but current high priority sites include:
 - Ellicott Hall, Cambridge Hall, Leonardtown Community, and Prince Frederick Hall
 - Edward St. John Learning & Teaching Center, Jones-Hill House, Stamp Student Union, and Toll Physics Building
- SGA and RHA are involved in the process with a letter of support from Terps for Bike Lanes
- DOTS has purchased 30 bike racks to install between Fall 2023 - Spring 2024



DOTS Bike and Scooter Parking Expansion Plan

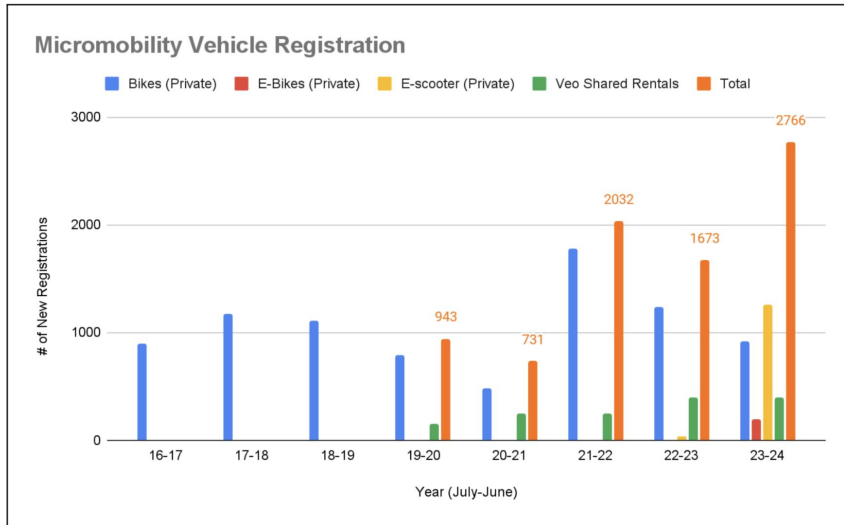
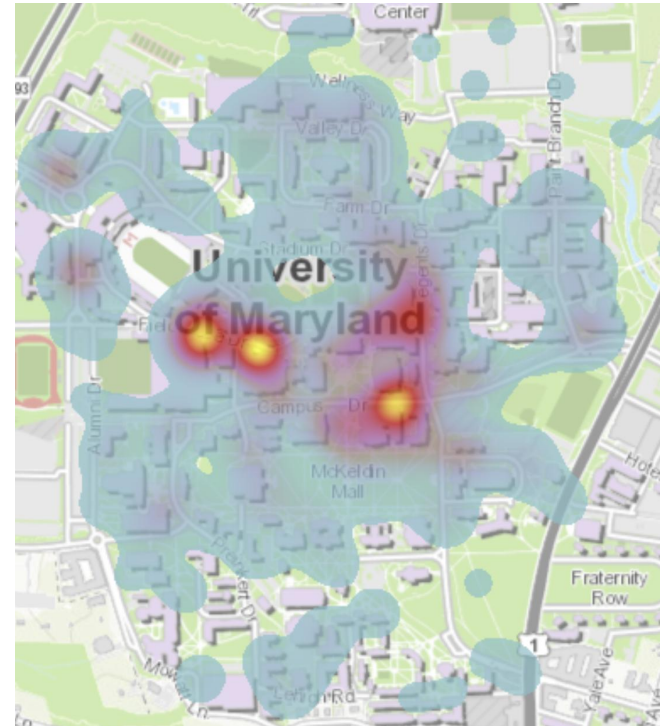


Figure 1: Micromobility Vehicle Registration Trends

*2019-2020 & 2020-2021: UMD Campus De-densified due to COVID-19

**2023-2024: DOTS introduces mandatory e-bike & scooter registration policy. Prior bike registration was not enforced so actual bikes on campus are higher.





DOTS Bike and Scooter Parking Expansion Plan



Proposed Schedule		
Year	Racks Installed	Parking Spaces Yielded
Fall 2023 - Spring 2024*	30*	240*
Fall 2024 - Spring 2025	40	320
Fall 2025 - Spring 2026	40	320
Total Racks Installed by Summer 2026	110	880

* These racks have been purchased by DOTS and are not part of the proposal



DOTS Bike and Scooter Parking Expansion Plan



Item	Quantity	Source of Funds	Cost
4 Loop U-Two (8 Bikes) - Powder Coated Racks	80	Sustainability Fund	\$44,154.40
Shipping and Handling	1	Sustainability Fund	\$1,600.00
Installing on Existing Pavement	70	Sustainability Fund	\$28,000.00
Installing on New Concrete	10	DOTS	\$31,500.00
Total Requested from Sustainability Fund			\$73,754.40



ENES100 School Store



Requested: \$3,324

SFRC recommendation: \$3,324

Summary: ENES 100 is an introductory course required for all engineering majors. As part of the course, students purchase parts and construct a robot. Each semester, parts and leftover materials are thrown out. The engineering department wants to significantly expand their store so students can recycle parts from their robot at the end of the semester to be reused by future students.



Submitted by: Michael Galczynski; Engineering Professor,
Keystone Program



ENES100 School Store



- ENES100 professors, specifically Prof. Galczynski, have been running the store out of a small closet for a few years.
 - It has been successful but there are large space and organization restraints.
- Each student spends about \$40 on parts with over 1000 students taking the course yearly resulting in a potential savings for students of around \$40,000.
- Proper recycling would allow for the following products to be removed from the waste stream:
 - 130 Arduinos, 260 - 520 electric motors, 130 servo motors, 130 Nickel Metal Hydride Batteries & Battery Chargers, 600 electronic sensors, wood, glue, nuts, bolts, etc.
- Prof. Galczynski makes entertaining YouTube videos for his courses and plans to make a 90s-style comedic music video surrounding the sustainability of the store and the overall benefits of sustainability to show in his ENES100 classes.
- Additionally, the maintenance of the store will be built into professor and UTA responsibilities after the initial semester of funding.



ENES100 School Store



Item	Amount	Cost
Mobile Link Stackable Bin Organizer	2	\$950
Plastic Stackable Bins, Labels, Lids, Etc.	TBD	\$800
iPad	1	\$449
Stipend for Student Development Work	75 hrs x \$15/hr	\$1,125
Total		\$3,324



Getting at the Root of Mangrove Resiliency



Requested: \$3,361.20

SFRC recommendation: \$3,361.20

Summary: Mangrove forests are one of the most productive ecosystems in the world, storing 3-5x more carbon per hectare than tropical rainforests. A senior AOSC student wants to research the below-ground carbon storage capabilities of mangrove forests. He plans to travel to Florida to obtain soil samples in mangrove forests in Rookery Bay National Estuarine Research Reserve and conduct analysis with support from a lab at Florida International University.

Submitted by: Jonah Pereyra, Senior Atmospheric and Oceanic Sciences Student





Getting at the Root of Mangrove Resiliency



- Scope of the research:
 - How below-ground carbon storage of a mangrove forest responded to historic hydrologic changes and how it is currently responding to a community-based restoration effort
- The research is part of the requirement for Atmospheric and Oceanic Science seniors to complete a yearlong thesis with a mentor in their field
- Outcomes and benefits for UMD:
 - Furthering blue carbon studies
 - Maryland's coastline supports numerous seagrass beds which sequester carbon similarly to mangrove forests
 - Blue carbon is a growing area for carbon offsets. Quantifiable research would help expand available offsets and support purchases by UMD
 - Informing students and communities
 - The student will present two hybrid presentations and defenses to UMD students, faculty, and the public
 - Depending on findings, submission of research to a peer reviewed journal
- The student plans to travel to Rookery Bay National Estuarine Research Reserve during the Winter 2024 term



Getting at the Root of Mangrove Resiliency



Item	Description	Cost
Travel Expenses	Round-trip travel to RBNERR and travel in Florida	\$1,500.00
Lodging at RBNERR	Cost for visiting researchers (\$25/night for 21 nights)	\$525.00
Gouge Auger	Used to collect soil samples	\$530.00
Carbon and Nitrogen Lab Analysis	Fees charged by FIU labs (\$20/sample for 64 samples)	\$1,280.00
Tin Capsules Pressed Standard Weight 8 x 5mm pack of 250	Required to perform necessary analysis	\$26.20
Funding from Gemstone "GO" fund		-\$500.00
Total		\$3,361.20



Arboretum Summer Internship



Requested: \$44,912

SFRC recommendation: \$44,912

Summary: Using a budget surplus, the Institute of Applied Agriculture funded four full-time internships at the Arboretum last summer. The help was greatly appreciated so the Arboretum is seeking funds to establish 7 full-time sustainability internships for the summer of 2024.

Submitted by: Meg Smolinski, Outreach Coordinator for UMD Arboretum & Botanical Gardens





Arboretum Summer Internship



- **Positions include:**
 - Campus Food Gardens, Conservation Landscape, Educational Programming, Pollinator Garden, Stormwater Management, Tree Inventory, Arborist
- The Arboretum already has already had interns so they plan to draw on past experiences to model this program
- **Benefits to UMD and Students:**
 - Assistance with important activities such as the general upkeep of gardens, educating the public through social media and tabling, and the tree inventory
 - Assistance with well known projects like the Community Learning Garden which donates approximately 1,200-1,500 pounds of produce to the Campus Pantry annually
 - Paid internships provide sustainability experience regardless of financial status
 - GIS training and experience
- They plan to re-apply for funding annually
- Four letters of support from past Arboretum interns detailing the benefits of their internships



Arboretum Summer Internship



Item	Amount	Cost
Salaries	7 interns at \$17/hr for 320 hours each	\$38,080
Summer Parking Permit	7	\$3,157
Block Meal Plan for Lunches	50 meals for each intern	\$3,675
Total		\$44,912