

USM - University of Maryland Center for Environmental Science

MISSION

The University of Maryland Center for Environmental Science (UMCES) is a research institution that advances knowledge in environmental and natural sciences through scientific discovery, integration, application and teaching. UMCES is the only institution of the University System of Maryland (USM) whose statutory mission is the development of a comprehensive program of environmental research, education and service. Through these functions, UMCES will maintain its national and international reputation for the excellence and multidisciplinary nature of its research, its success in applying scientific knowledge to the management of the Chesapeake Bay and its watershed, and its multifaceted collaborations in education. UMCES can grant joint graduate degrees in environmental sciences and advise, teach, and serve as mentors to many graduate students in USM institutions.

VISION

UMCES will continue to evolve as a globally eminent yet locally relevant institution dedicated to discovery, integration, application and teaching concerning the environment and natural resources.

KEY GOALS, OBJECTIVES, AND PERFORMANCE MEASURES

Goal 1. Strengthen the predictive ecology for Maryland through highly relevant research programs.

Obj. 1.1 Increase to 240 the number of Chesapeake Bay restoration research projects from 214 in 2015.

Performance Measures	2019 Act.	2020 Act.	2021 Act.	2022 Act.	2023 Act.	2024 Est.	2025 Est.
Number of Chesapeake Bay restoration projects	183	202	175	234	265	245	265

Goal 2. Strengthen the K-12 education and teacher training in environmental education programs.

Obj. 2.1 Maintain the number of K-12 students participating in UMCES' environmental education programs at 11,000.

Obj. 2.2 Increase science, technology, engineering and math (STEM) teacher training to 910 teachers from 888 teachers in 2015 in UMCES' environmental education programs.

Performance Measures	2019 Act.	2020 Act.	2021 Act.	2022 Act.	2023 Act.	2024 Est.	2025 Est.
¹ K-12 students participating in environmental education program	11,000	3,000	N/A	2,000	2,000	3,500	3,500
¹ K-12 teachers trained in environmental education program	341	105	N/A	100	100	200	200

Goal 3. Increase extramural support from government and private sources.

Obj. 3.1 Improve private support to \$4 million from \$2.8 million in 2015.

Obj. 3.2 Increase the two-year running average of total extramural research funding received to \$25.5 million.

Obj. 3.3 Increase research expenditures from all sources to \$60.0 million from \$52.2 million in 2015.

Performance Measures	2019 Act.	2020 Act.	2021 Act.	2022 Act.	2023 Act.	2024 Est.	2025 Est.
Private support (\$ millions)	\$3.2	\$3.9	\$6.7	\$14.3	\$5.6	\$7.5	\$8.0
Two-year running average of total extramural research funding (\$ millions)	\$22.7	\$22.6	\$24.0	\$27.8	\$28.7	\$28.0	\$29.0
² Research expenditures (\$ millions) as calculated for National Science Foundation report	\$56.0	\$54.6	\$51.2	\$53.7	\$55.3	\$57.0	\$58.0

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Goal 4. Provide quality research and graduate education.

Obj. 4.1 Increase to at least 225 annual peer-reviewed publications produced by UMCES faculty from 164 in 2015.

Obj. 4.2 Increase the mean number of citations in peer-review publications attributed to UMCES faculty members to 48.0 from 40.5 in 2015.

Obj. 4.3 Increase the number of new large competitive extramural research awards in excess of \$300,000 to 29 from 23 in 2015.

Obj. 4.4 Improve faculty salaries to the 42nd percentile for Carnegie Research I universities in order to attract and retain outstanding faculty from the 35th percentile in 2015.

Obj. 4.5 Continue through 2017 to maintain research expenditures per faculty member at or above the 85th percentile for Carnegie Research I Universities.

Performance Measures	2019 Act.	2020 Act.	2021 Act.	2022 Act.	2023 Act.	2024 Est.	2025 Est.
² Number of peer-reviewed publications produced by faculty	203	205	262	196	235	270	275
² Mean number of citations per peer-reviewed publications attributed to UMCES faculty	47.1	48.1	48.5	51.6	51.8	50.5	52.0
Number of grants awarded in excess of \$300,000	24	17	24	21	30	26	28
Percentile rank of UMCES faculty salaries, on average, compared to those at Carnegie Research I universities	27%	33%	32%	43%	66%	48%	55%
Percentile rank of UMCES expenditures per faculty member as compared to Carnegie Research I universities	>85%	>85%	>85%	>85%	>85	>85%	>85%

NOTES

¹ 2021 actual data was indeterminate due to the significant impact of the pandemic.

² 2023 data is an estimate.