

# UNIVERSITY SYSTEM OF MARYLAND

## R30B34.00 UNIVERSITY OF MARYLAND CENTER FOR ENVIRONMENTAL SCIENCE

### PROGRAM DESCRIPTION

The University of Maryland Center for Environmental Science (UMCES) engaging in research, education, and public service consists of three laboratories, two of which are located on the Chesapeake Bay: The Chesapeake Biological Laboratory (CBL) at Solomons, the Horn Point Laboratory (HPL) at Cambridge, and the Appalachian Laboratory (AL) at Frostburg. The Research Fleet Operations (RFO) is based at Solomons. The Maryland Sea Grant College coordinates the research efforts of the USM that are associated with the U.S. Department of Commerce's National Oceanic and Atmospheric Administration.

### 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. While UMCES does not grant degrees, its faculty members advise, teach, and serve as mentors to many graduate students enrolled 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.

**Objective 1.1** By 2010 increase to 250 the number of Chesapeake Bay restoration research projects, from 179 in 2008.

	2007	2008	2009	2010
Performance Measure	Actual	Actual	Estimated	Estimated
<b>Output:</b> Number of Chesapeake Bay restoration projects	197	179	250	250

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

**Objective 2.1** By 2010 increase to 11,500 the number of K-12 students participating in UMCES' environmental education program from 11,000 in 2008.

	2007	2008	2009	2010
Performance Measure	Actual	Actual	Estimated	Estimated
<b>Output:</b> K-12 students participating in environmental education program	10,500	11,000	11,500	11,500

**Objective 2.2** Continue through 2010, to maintain at least 450 teachers trained in UMCES' environmental education program.

	2007	2008	2009	2010
Performance Measure	Actual	Actual	Estimated	Estimated
<b>Output:</b> K-12 teachers trained in environmental education program	524	455	450	500

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

**Objective 3.1** By 2010 improve private support to \$2.5 million, from \$1.4 million in 2008.

	2007	2008	2009	2010
Performance Measure	Actual	Actual	Estimated	Estimated
<b>Input:</b> Private support (\$ millions)	\$1.9	1.4	2.0	\$2.5

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**Objective 3.2** By 2010 increase the two-year running average of new extramural research funding that was received to \$25 million, from \$17.7 million in 2008.

<b>Performance Measure</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>
<b>Input:</b> Two-year running average of extramural research funding (\$ million)	<b>Actual</b>	<b>Actual</b>	<b>Estimated</b>	<b>Estimated</b>
	\$17.3	\$17.7	\$22	\$25.0

**Objective 3.3** By 2010, increase research expenditures as reported to the National Science Foundation from all sources to \$44 million, from an estimate of \$42.0 million in 2008.

<b>Performance Measure</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>
<b>Input:</b> Research expenditures (\$ millions)	<b>Actual</b>	<b>Actual</b>	<b>Estimated</b>	<b>Estimated</b>
	\$40.7	\$42.0 <sup>1</sup>	\$43	\$44.0

**Goal 4.** Provide quality research and graduate education.

**Objective 4.1** By 2010 increase to at least 150 annual peer-reviewed publications produced by UMCES faculty from 145 in 2007.

<b>Performance Measure</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>
<b>Output:</b> Number of peer-reviewed publications produced by UMCES faculty	<b>Actual</b>	<b>Actual</b>	<b>Estimated</b>	<b>Estimated</b>
	145	150 <sup>1</sup>	150	150

**Objective 4.2** By 2010, increase the mean number of citations in peer-review publications attributed to UMCES faculty members to 32.0 from an estimate of 29.3 in 2008.

<b>Performance Measure</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>
<b>Quality:</b> Mean number of citations per peer-reviewed publications attributed to UMCES faculty	<b>Actual</b>	<b>Actual</b>	<b>Estimated</b>	<b>Estimated</b>
	28.5	29.3 <sup>1</sup>	32.0	33.0

**Objective 4.3** By 2010, increase the average GRE (Verbal and Quantitative) scores for incoming students under the direction of UMCES faculty to 1350, from 1,189 in 2007.

<b>Performance Measure</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>
<b>Output:</b> Average GRE scores (Verbal and Quantitative) of incoming students under the direction of UMCES faculty	<b>Actual</b>	<b>Actual</b>	<b>Estimated</b>	<b>Estimated</b>
	1,224	1,189	1,350	1,350

**Objective 4.4** By 2010, increase the number of new large competitive extramural research awards, in excess of \$300,000, to 25 from 15 in 2008.

<b>Performance Measure</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>
<b>Quality:</b> Number of grants awarded in excess of \$300,000	<b>Actual</b>	<b>Actual</b>	<b>Estimated</b>	<b>Estimated</b>
	8	15	25	27

**Objective 4.5** By 2010, improve faculty salaries to the 45<sup>th</sup> percentile for Carnegie Research I universities in order to attract and retain outstanding faculty from an estimated 23<sup>rd</sup> percentile in 2008.

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<b>Performance Measure</b>	<b>2007 Actual</b>	<b>2008 Actual</b>	<b>2009 Estimated</b>	<b>2010 Estimated</b>
<b>Output:</b> Percentile rank of UMCES faculty salaries, on average, compared to those at Carnegie Research I universities	26%ile	23%ile <sup>1</sup>	35%ile	45%ile

**Objective 4.6** Continue through 2010 to maintain research expenditures per faculty member at above the 85<sup>th</sup> percentile for Carnegie Research I Universities.

<b>Performance Measure</b>	<b>2007 Actual</b>	<b>2008 Actual</b>	<b>2009 Estimated</b>	<b>2010 Estimated</b>
<b>Output:</b> Percentile rank of UMCES expenditures per faculty member as compared to Carnegie Research I universities	>85%ile	>85%ile <sup>1</sup>	>85%ile	>85%ile

**Note:** <sup>1</sup>Data are estimated. Final data are not yet available or are still being finalized.