

**R30B34**  
**University of Maryland Center for Environmental Science**  
**University System of Maryland**

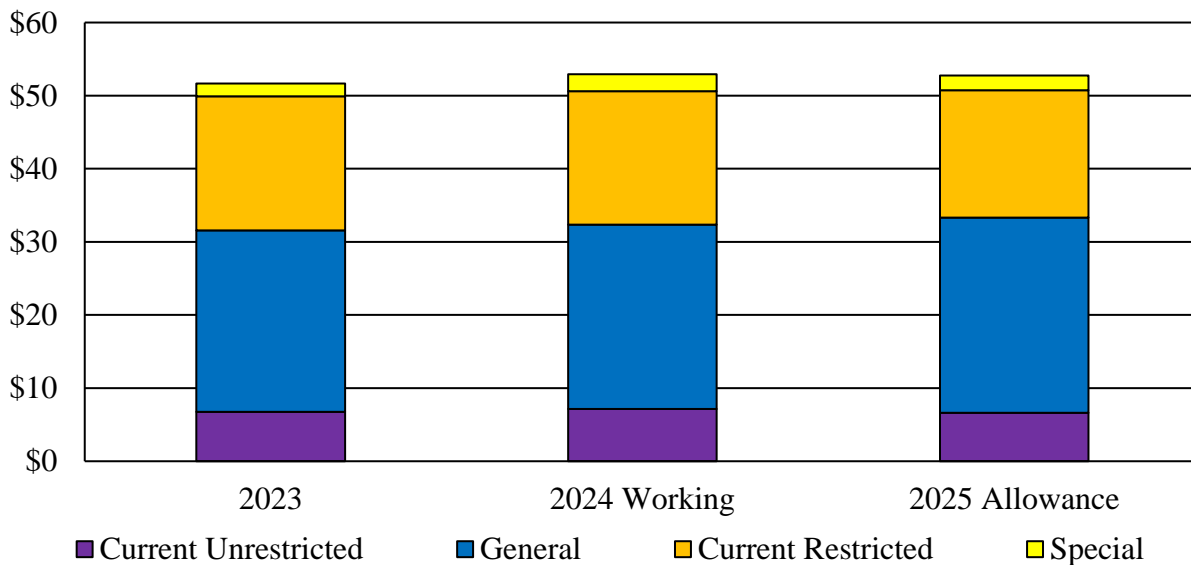
**Program Description**

The University of Maryland Center for Environmental Science (UMCES) is a research institution for environmental and natural science studies with a mission to develop a comprehensive program of environmental research, education, and service. Research focuses on the watersheds, estuaries, and coastal areas of Maryland and the greater Chesapeake Bay region and applying knowledge to help predict conditions in Maryland’s ecology. UMCES includes four geographically distinct laboratories under a single administration that also serve as regional centers: (1) Appalachian Laboratory in Frostburg; (2) Chesapeake Biological Laboratory on Solomon’s Island; (3) Horn Point Laboratory in Cambridge; and (4) the Institute of Marine and Environmental Technology in Baltimore, which is a joint research institute between UMCES, the University of Maryland Baltimore County, and the University of Maryland, Baltimore Campus.

***Operating Budget Summary***

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**Fiscal 2025 Budget Decreases \$161,743, or 0.3%, to \$52.8 Million**



Note: Numbers may not sum to total due to rounding. The fiscal 2024 working appropriation includes deficiencies. The fiscal 2024 impacts of statewide salary adjustments appear in the Statewide Account in the Department of Budget and Management (DBM), and adjustments are not reflected in this agency’s budget. The fiscal 2025 impacts of the fiscal 2024 statewide salary adjustments appear in this agency’s budget. The fiscal 2025 statewide salary adjustments are centrally budgeted in DBM and are not included in this agency’s budget.

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- General funds increase by 5.8%, or \$1.5 million, in fiscal 2025 compared to the fiscal 2024 working appropriation after accounting for a deficiency that would replace \$0.5 million in general funds with the Higher Education Investment Fund (HEIF). After adjusting for the deficiency, the HEIF decreases by 13.5%, or \$0.3 million, in fiscal 2025 compared to fiscal 2024. Overall, State funding increases by 4.2%, or \$1.2 million, in fiscal 2025.
- When excluding the fiscal 2024 general salary increases included in the fiscal 2025 allowance but not included in UMCES’s fiscal 2024 working appropriation, State funds increase by 0.9%, or \$0.2 million.

## **Fiscal 2024**

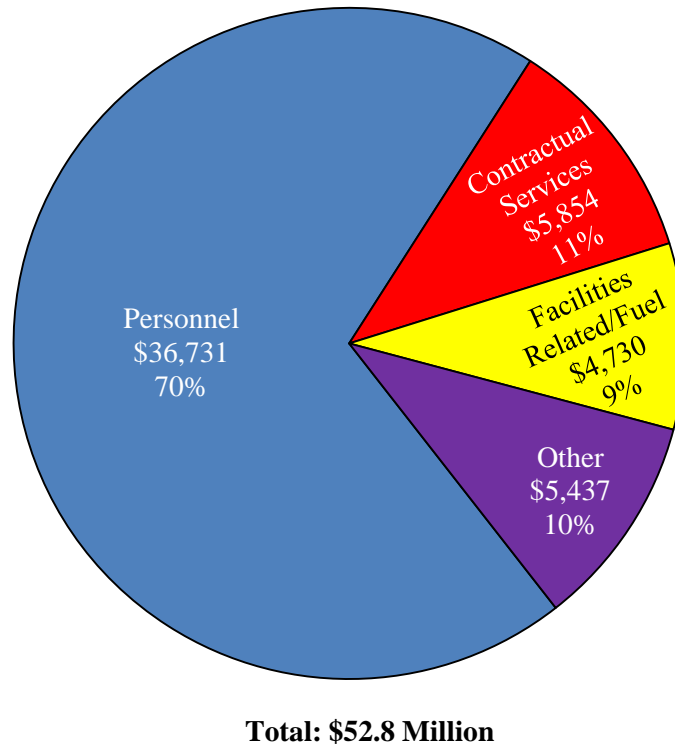
### **Proposed Deficiency**

The fiscal 2025 budget includes a proposed deficiency appropriation totaling \$32.0 million across institutions that would replace general funds with HEIF due to the higher than anticipated revenues, of which UMCES’ share is \$0.5 million.

## **Fiscal 2025 Overview of Agency Spending**

As shown in **Exhibit 1**, the fiscal 2025 allowance for UMCES totals \$52.8 million. Personnel expenditures account for 70% of total spending.

**Exhibit 1**  
**Overview of Agency Spending**  
**Fiscal 2025 Allowance**  
**(\$ in Thousands)**



Source: Governor’s Fiscal 2025 Budget Books; Department of Legislative Services

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**Proposed Budget Change**

As shown in **Exhibit 2**, State funds in the fiscal 2025 allowance, adjusting for fiscal 2024 salary adjustments included in the allowance but not the fiscal 2024 working appropriation, increase by \$0.2 million, or 0.9%, compared to the adjusted fiscal 2024 working appropriation. The fiscal 2025 allowance provides \$0.7 million for the opening of a new facility and \$51,969 for statewide cost allocations. These increases are partly offset by a \$0.4 million decrease related to adjusting the turnover rate to 6%.

**Exhibit 2**  
**Proposed Budget**  
**University of Maryland Center for Environmental Science**  
**Fiscal 2023-2025**  
**(\$ in Thousands)**

	<u>2023</u> <u>Actual</u>	<u>2024</u> <u>Adjusted</u>	<u>2025</u> <u>Adjusted</u>	<u>2024-2025</u> <u>Change</u>	<u>% Change</u> <u>Prior Year</u>
General Funds	\$24,792	\$25,679	\$25,765	\$86	0.3%
Deficiency HEIF Swap		-474			
<b>Total General Funds</b>	<b>\$24,792</b>	<b>\$25,205</b>	<b>\$25,765</b>	<b>\$560</b>	<b>2.2%</b>
Special Funds					
HEIF	\$1,790	\$1,834	\$1,997		
Deficiency HEIF Swap		474			
Total HEIF	1,790	2,308	1,997	-\$311	-15.6%
<b>Total Adjusted State Funds</b>	<b>\$26,582</b>	<b>\$27,513</b>	<b>\$27,762</b>	<b>\$249</b>	<b>0.9%</b>
Fiscal 2024 General Salary Increases			\$913		
<b>Total State Operating Funds</b>	<b>\$26,582</b>	<b>\$27,513</b>	<b>\$28,675</b>	<b>\$1,162</b>	<b>4.2%</b>
Other Unrestricted Funds	\$9,205	\$7,499	\$6,974	-\$525	-7.0%
Transfer (to)/from Fund Balance	-2,427	-329	-347		
<b>Net Unrestricted Funds</b>	<b>\$33,360</b>	<b>\$34,684</b>	<b>\$35,302</b>	<b>\$619</b>	<b>1.8%</b>
<b>Total Restricted Funds</b>	<b>\$18,318</b>	<b>\$18,230</b>	<b>\$17,449</b>	<b>-\$781</b>	<b>-4.3%</b>
<b>Total Funds</b>	<b>\$51,678</b>	<b>\$52,914</b>	<b>\$52,752</b>	<b>-\$162</b>	<b>-0.3%</b>

HEIF: Higher Education Investment Fund

Note: Numbers may not sum to total due to rounding. The fiscal 2024 working appropriation includes deficiencies. The fiscal 2024 impacts of statewide salary adjustments appear in the Statewide Account in the Department of Budget and Management (DBM), and adjustments are not reflected in this agency's budget. The fiscal 2025 impacts of the fiscal 2024 statewide salary adjustments appear in this agency's budget. The fiscal 2025 statewide salary adjustments are centrally budgeted in DBM and are not included in this agency's budget.

Source: Governor's Fiscal 2025 Budget Books

***Personnel Data***

	<b><u>FY 23 Actual</u></b>	<b><u>FY 24 Working</u></b>	<b><u>FY 25 Allowance</u></b>	<b><u>FY 24-25 Change</u></b>
Regular Positions	276.86	281.86	281.86	0.00
Contractual FTEs	<u>64.00</u>	<u>64.00</u>	<u>64.00</u>	<u>0.00</u>
<b>Total Personnel</b>	<b>340.86</b>	<b>345.86</b>	<b>345.86</b>	<b>0.00</b>

***Vacancy Data: Regular Positions***

Turnover and Necessary Vacancies, Excluding New Positions	14.29	5.07%
Positions and Percentage Vacant as of 12/31/23	23.42	8.31%
Vacancies Above Turnover	9.13	

- University System of Maryland institutions have personnel autonomy and may create or abolish positions during the fiscal year. In fiscal 2024 year-to-date, UMCES has created 5.0 full-time equivalent State-supported positions.

## Key Observations

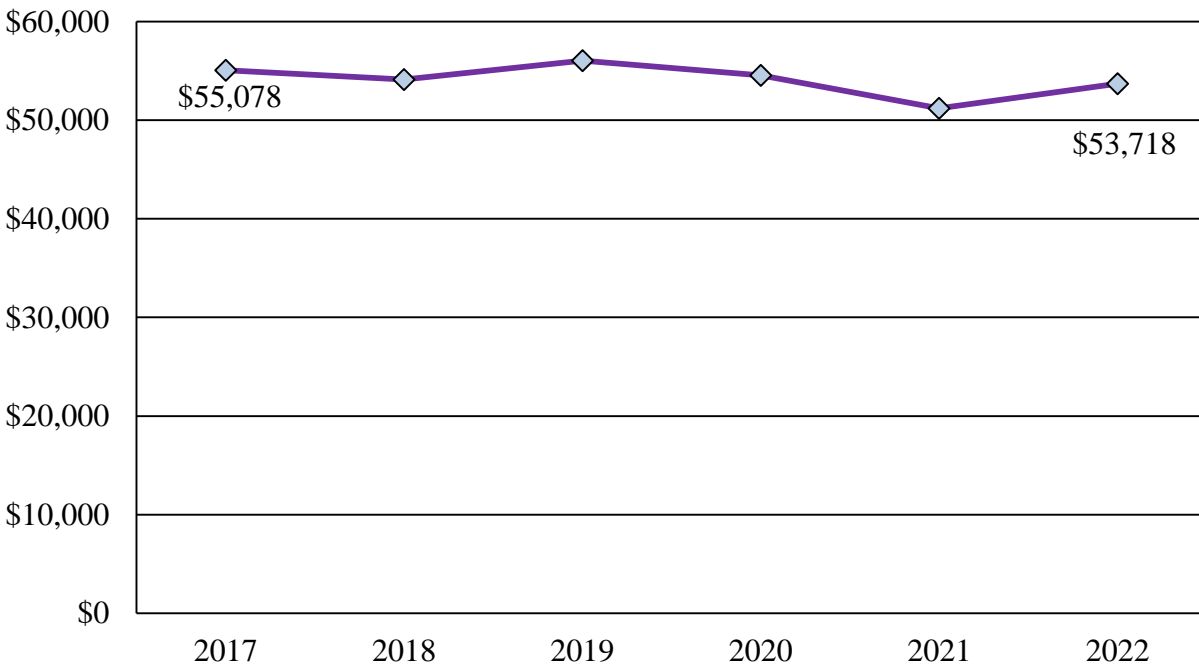
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### 1. Research and Development Expenditures

As a research institution, UMCES relies on federal, State, and local contracts and awards for over half of its budget. As shown in **Exhibit 3**, while total research and development expenditures, as reported to the National Science Foundation (NSF), have varied, and spending has exceeded \$50 million since fiscal 2017. It should be noted that, in general, total expenditures may exceed UMCES’ budget due to NSF including matching, facility, and personnel funds that may be budgeted elsewhere. After increasing to \$56.0 million in fiscal 2019, research and development expenditures decreased to \$51.2 million in fiscal 2021 before increasing by \$2.5 million to \$53.7 million in fiscal 2022.

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**Exhibit 3**  
**Total Research and Development Expenditures**  
**Fiscal 2017-2022**  
**(\$ in Thousands)**



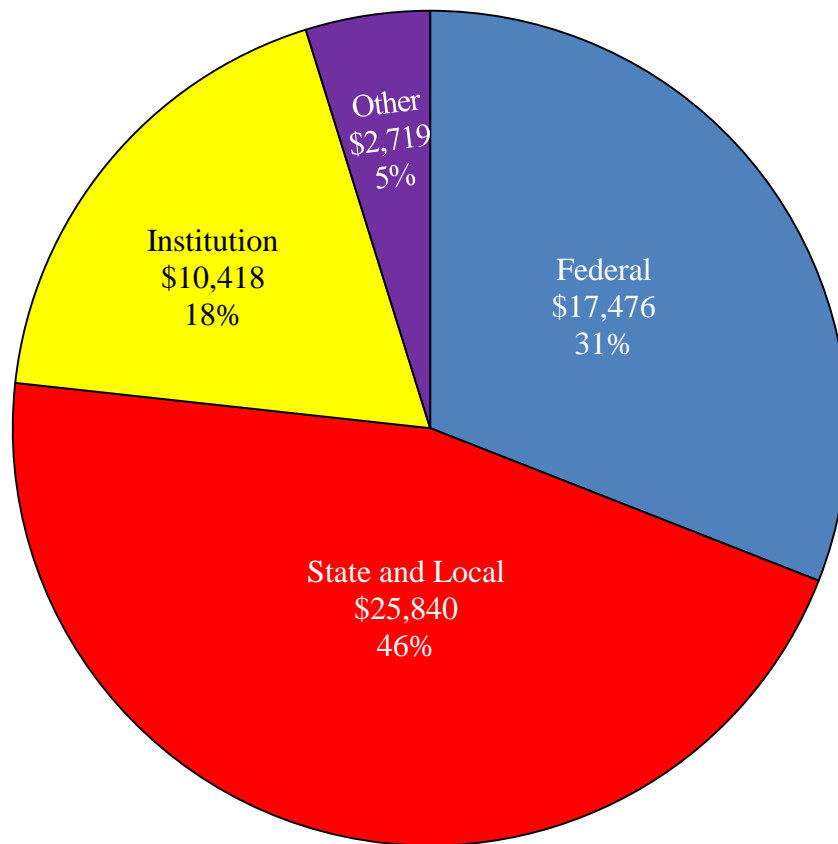
Source: National Center for Science and Engineering Statistics; Higher Education Research and Development Survey

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As shown in **Exhibit 4**, State and local government contracts and awards comprise 46% of total expenditures in fiscal 2022, with the federal government accounting for 31%.

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**Exhibit 4**  
**Research and Development Expenditures by Source**  
**Fiscal 2022**  
**(\$ in Thousands)**



Note: Fiscal 2021 is the most recent year data is available; institutional funds include indirect costs, unrestricted general funds or local appropriations, and private gifts, grants, or contracts.

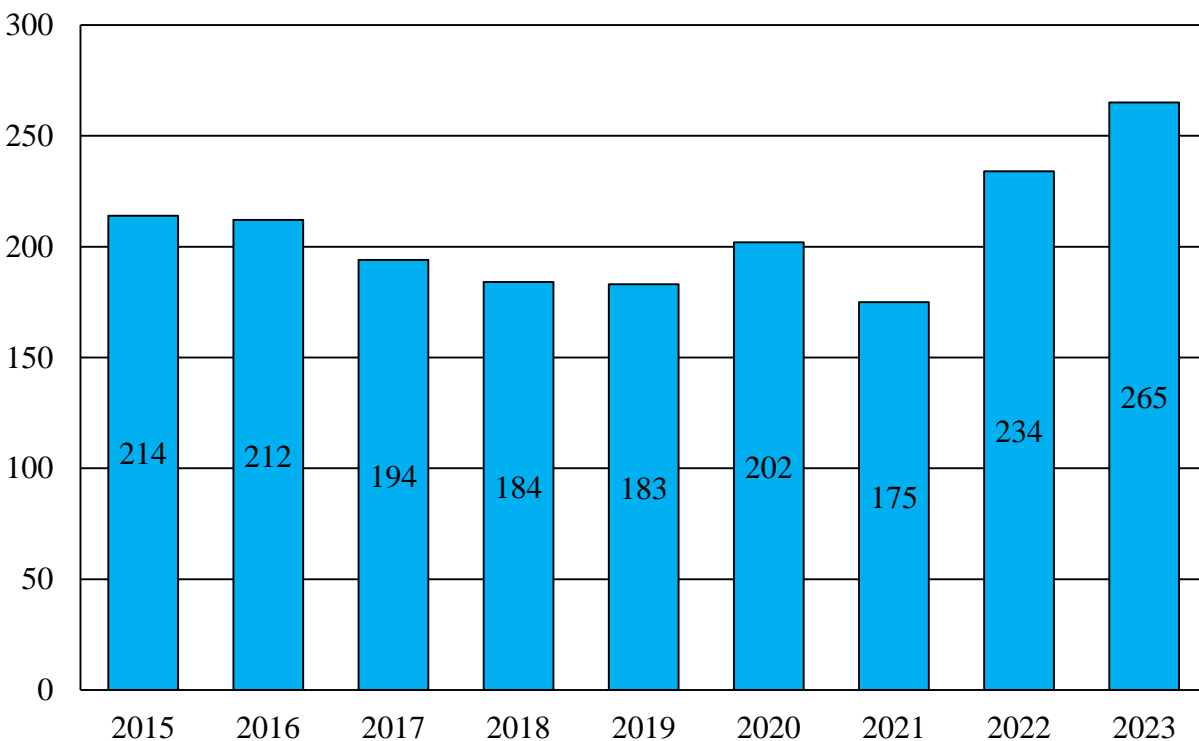
Source: National Science Foundation

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## 2. Chesapeake Bay Restoration Projects

UMCES tracks the number of Chesapeake Bay restoration projects that it has participated in as a measure of strengthening its predictive ecology for Maryland. Predictive ecology is predicting how ecological populations, communities, or ecosystems will change in the future in response to various environmental factors, such as climate warming. Projects focus on the Chesapeake Bay generally and specific aspects of bay restoration, ranging from research concerning the overall health of the bay to specific organisms, such as conducting the annual blue crab survey. The total number of projects is driven primarily by grant funding. As shown in **Exhibit 5**, the number of projects has significantly increased since fiscal 2021, reaching the highest number of projects at 265 in fiscal 2023.

**Exhibit 5**  
**Chesapeake Bay Restoration Projects**  
**Fiscal 2015-2023**



Source: Governor's Fiscal 2025 Budget Books



## ***Operating Budget Recommended Actions***

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1. See the University System of Maryland overview for systemwide recommendations.

**Appendix 1**  
**Object/Fund Difference Report**  
**University of Maryland Center for Environmental Science**

<u>Object/Fund</u>	<u>FY 23</u> <u>Actual</u>	<u>FY 24</u> <u>Working</u> <u>Appropriation</u>	<u>FY 25</u> <u>Allowance</u>	<u>FY 24 - FY 25</u> <u>Amount Change</u>	<u>Percent</u> <u>Change</u>
<b>Positions</b>					
01 Regular	276.86	281.86	281.86	0.00	0%
02 Contractual	64.00	64.00	64.00	0.00	0%
<b>Total Positions</b>	<b>340.86</b>	<b>345.86</b>	<b>345.86</b>	<b>0.00</b>	<b>0%</b>
<b>Objects</b>					
01 Salaries and Wages	\$36,145,413	\$37,053,188	\$36,730,604	-\$322,584	-0.9%
02 Technical and Special Fees	208,767	773,497	789,793	16,296	2.1%
03 Communication	311,394	261,318	237,548	-23,770	-9.1%
04 Travel	981,309	615,546	611,681	-3,865	-0.6%
06 Fuel and Utilities	2,110,312	2,230,713	2,207,716	-22,997	-1.0%
07 Motor Vehicles	510,734	1,223,599	1,224,079	480	0%
08 Contractual Services	7,264,387	6,426,883	5,854,251	-572,632	-8.9%
09 Supplies and Materials	1,330,801	992,477	997,727	5,250	0.5%
11 Equipment – Additional	522,209	586,514	576,519	-9,995	-1.7%
12 Grants, Subsidies, and Contributions	104,430	105,250	120,762	15,512	14.7%
13 Fixed Charges	2,177,238	970,830	878,763	-92,067	-9.5%
14 Land and Structures	11,081	1,673,840	2,522,469	848,629	50.7%
<b>Total Objects</b>	<b>\$51,678,075</b>	<b>\$52,913,655</b>	<b>\$52,751,912</b>	<b>-\$161,743</b>	<b>-0.3%</b>
<b>Funds</b>					
40 Unrestricted Fund	\$33,359,890	\$34,683,652	\$35,302,443	\$618,791	1.8%
43 Restricted Fund	18,318,185	18,230,003	17,449,469	-780,534	-4.3%
<b>Total Funds</b>	<b>\$51,678,075</b>	<b>\$52,913,655</b>	<b>\$52,751,912</b>	<b>-\$161,743</b>	<b>-0.3%</b>

Note: The fiscal 2024 appropriation does not include deficiencies. The fiscal 2025 allowance does not include statewide salary actions budgeted within the Department of Budget and Management.