

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

***Operating Budget Data***

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(\$ in Thousands)

	<u>FY 02</u>	<u>FY 03</u>	<u>FY 04</u>	<u>FY 02-04</u> <u>Change</u>	<u>FY 05</u>	<u>FY 04-05</u> <u>Change</u>
<b>Research/Public Service</b>	<b>\$34,020</b>	<b>\$33,992</b>	<b>\$33,977</b>	<b>-\$43</b>	<b>\$33,977</b>	<b>\$0</b>
General Funds	13,479	13,166	13,019	-460	13,019	0
Other Unrestricted Funds	5,146	5,243	4,403	-743	4,403	0
Total Unrestricted Funds	18,625	18,408	17,421	-1,203	17,421	0
Restricted Funds	15,396	15,584	16,556	1,160	16,556	0
<b>Adjusted Grand Total</b>	<b>\$34,020</b>	<b>\$33,992</b>	<b>\$33,977</b>	<b>-\$43</b>	<b>\$33,977</b>	<b>\$0</b>
<b>Annual % Change</b>		<b>-0.1%</b>	<b>0.0%</b>		<b>0.0%</b>	

- The fiscal 2005 allowance for the University of Maryland Center for Environmental Science (UMCES) provides no increase in general funds from the fiscal 2004 level. Since fiscal 2002, general funds for UMCES have declined \$459,995, or 3.4%.
- This institution budgets other unrestricted fund and restricted fund amounts conservatively, assuming no increase from fiscal 2004 to 2005.

Note: Numbers may not sum to total due to rounding.

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## ***Personnel Data***

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	<u>FY 02</u>	<u>FY 03</u>	<u>FY 04</u>	<u>FY 02-04</u> <u>Change</u>	<u>FY 05</u>	<u>FY 04-05</u> <u>Change</u>
Regular Positions	230.0	293.0	283.1	53.1	283.1	0.0
Contractual FTEs	64.0	65.5	62.5	-1.5	62.5	0.0
<b>Total Personnel</b>	<b>294.0</b>	<b>358.5</b>	<b>345.6</b>	<b>51.6</b>	<b>345.6</b>	<b>0.0</b>

### ***Vacancy Data: Regular Positions***

Turnover Expectancy	4.84	1.71%
Positions Vacant as of 12/31/03	9.00	3.20%

- The allowance provides no increase in regular or contractual positions.

## *Analysis in Brief*

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### Major Trends

**Research Success Continues:** The number of peer reviewed publications produced by UMCES faculty is increasing. The number of grants awarded that exceed \$300,000 has decreased in the last two years but is expected to achieve the 2004 objective of 20 awards.

**Teachers Still Are the Focus in Environmental Education:** The number of K-12 teachers participating in UMCES environmental education programs is expected to meet the 2004 objective of 325.

### Issues

**New Aquaculture Lab Severely Affected by General Funds Loss:** The UMCES Aquaculture Restoration and Ecology Lab (AREL) requires \$1.5 million in operating funds each year. UMCES anticipated receiving general funds to fully cover the costs of AREL, but its general funds have been reduced since fiscal 2002, and the lab is only partially operational. **The Department of Legislative Services (DLS) recommends that the UMCES president comment on whether alternative funding sources could be found for AREL.**

### Recommended Actions

1. Concur with Governor's allowance.

### Updates

**New Budget Report Increases Transparency:** Due to the specialized nature of UMCES, its funding is budgeted in only one program – research. UMCES has provided to the Department of Legislative Services a separate budget report that delineates funds by institutional support, plant, and public service programs as well as research. The report also indicates how the budget is allocated among the five UMCES locations/major activities.

*R30B34 – USM – University of Maryland Center for Environmental Science*

*Analysis of the FY 2005 Maryland Executive Budget, 2004*

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

## ***Operating Budget Analysis***

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### **Program Description**

The University of Maryland Center for Environmental Science (UMCES) is a research institution for environmental studies. It primarily focuses its research on the watersheds, estuaries, and coastal areas of the State of Maryland and the greater Chesapeake Bay region. One of the institution's goals is to strengthen the predictive ecology for Maryland through research programs.

UMCES includes three geographically distinct laboratories under a single administration:

- Appalachian Laboratory at Frostburg;
- Chesapeake Biological Laboratory at Solomons Island; and
- Horn Point Laboratory at Cambridge.

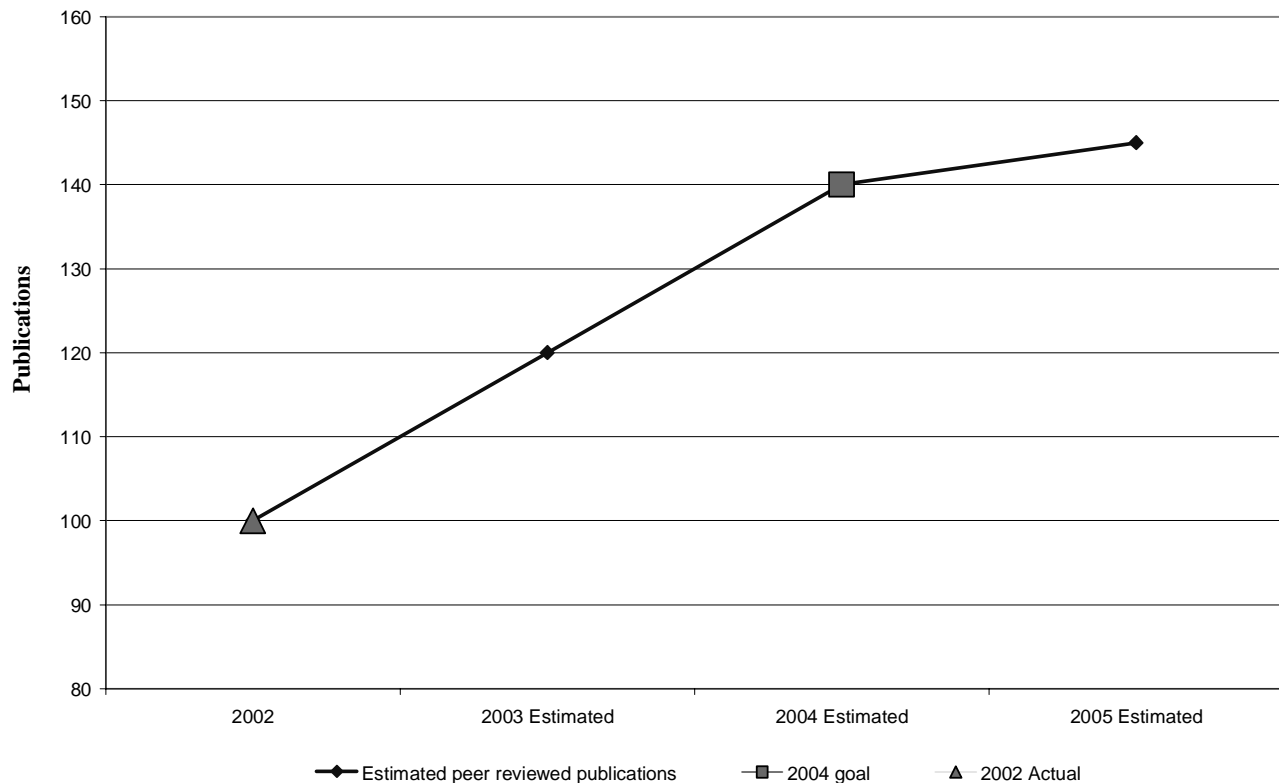
Each of the three UMCES laboratories serves as a regional center. To support the institution's goal of strengthening K-12 education and teacher training in environmental education, each site offers education programs about natural sciences to teachers and students from K-12 schools. Environmental education programs also serve environmental interest groups and institutions within and beyond the University System of Maryland that are concerned with environmental research, education, and service. UMCES provides advisory services to local Chesapeake Bay industries and is also the principal source of independent scientific information on environmental matters for Maryland's lawmakers, State agencies, and regional and national coastal management programs. While serving a broad audience, UMCES seeks the support of external entities through increased support from contract, grant, and private sources.

While UMCES does not grant degrees, its faculty members contribute to graduate education by advising, teaching, and supervising the research of students enrolled in the systemwide Marine-Estuarine-Environmental Sciences program. Additional graduate education activities include cooperative programs in fisheries and wildlife management and toxicology. These activities further the institution's goals of providing quality research and graduate education and helping to build an educated workforce.

## Performance Analysis: Managing for Results

Research is central to the mission of UMCES. Overall, performance measures on research are on track. The number of Chesapeake Bay restoration projects is increasing. The number of peer reviewed publications is increasing, as shown in **Exhibit 1**, which reflects the prominence of the institution’s research in the scientific community.

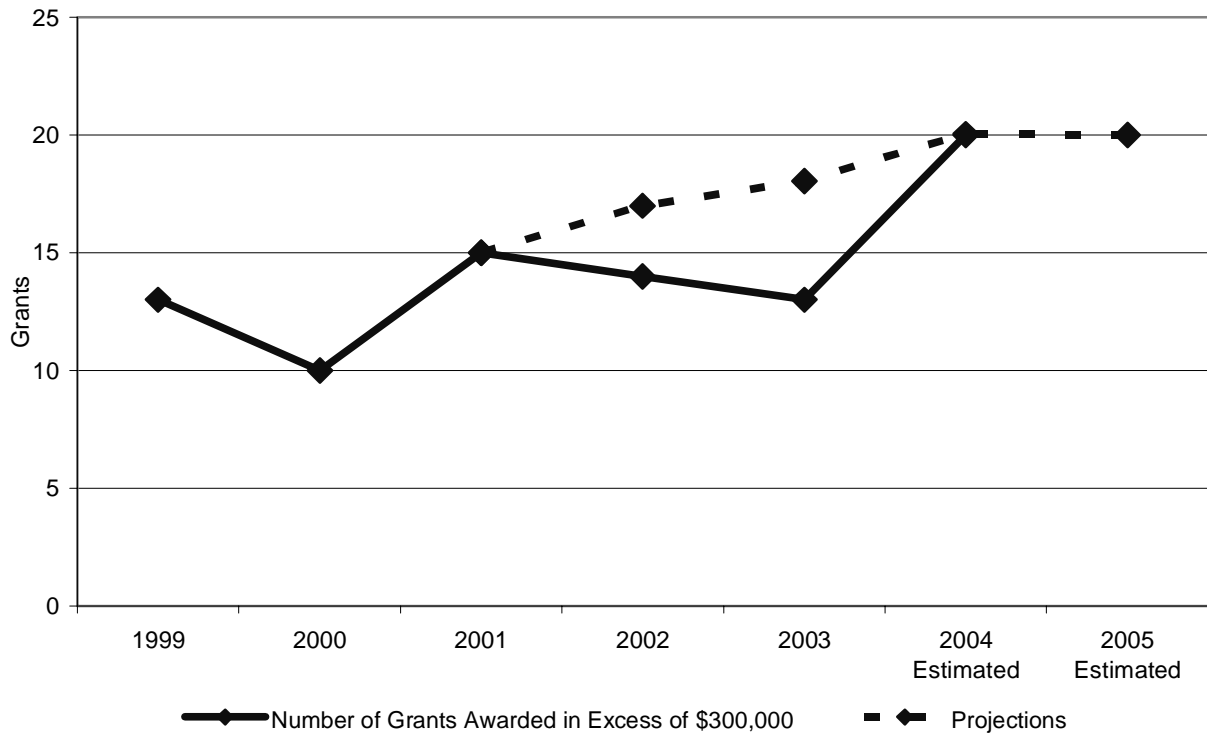
**Exhibit 1**  
**Peer Reviewed Publications**  
**Fiscal 2002 – 2005**



Source: Maryland State Budget Books, fiscal 2002 through 2005

Another research-related measure is the number of grants awarded that exceed \$300,000. These grants declined from fiscal 2001 to 2003, as shown in **Exhibit 2**. Nevertheless, UMCES has received nine such grants so far in fiscal 2004, and it expects to achieve the fiscal 2004 objective of 20 awards. UMCES also reports its two-year running average of extramural research funding. This average increased from \$19.7 million in fiscal 2002 to \$20.7 million in fiscal 2003, which meets the institution’s objective. The number is expected to further increase by fiscal 2005.

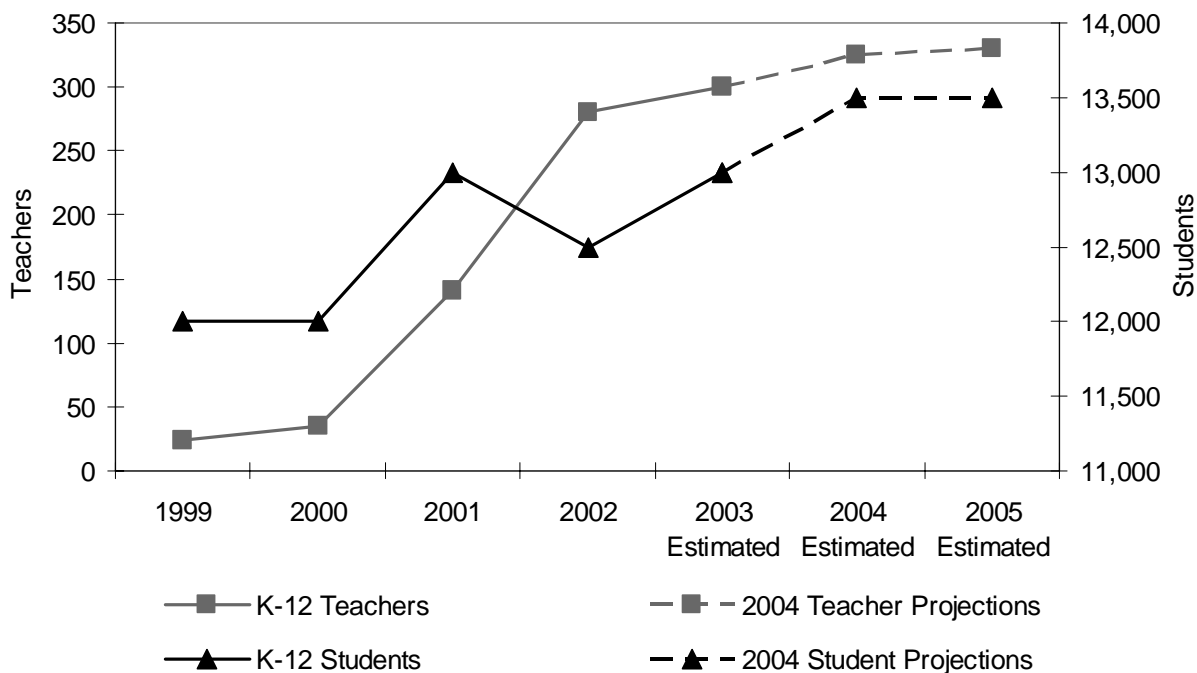
**Exhibit 2**  
**Grants Awarded in Excess of \$300,000**  
**Fiscal 1999 – 2005**



Source: Maryland State Budget Books, fiscal 2002 through 2005

In addition to research, UMCES has a goal to strengthen the K-12 education and teacher training in environmental education programs. The number of K-12 students participating in these programs has remained between 12,000 and 13,000 as shown in **Exhibit 3**. The number dropped in fiscal 2002 but is expected to increase again and meet the fiscal 2004 objective of 13,500. At the same time, the number of teachers participating in the education programs has increased dramatically, and the fiscal 2004 objective of 325 teachers is expected to be met. UMCES reports that, initially, the K-12 education program focused on students, but now emphasizes teachers.

**Exhibit 3  
K-12 Students and Teachers  
Participating in Environmental Education Programs  
Fiscal 1999 – 2005**



Source: Maryland State Budget Books, fiscal 2002 through 2005

## Fiscal 2004 Actions

### Impact of Cost Containment

General funds for UMCES have declined \$459,995, or 3.4%, from fiscal 2002 to the 2004 working appropriation. The Governor’s July 2003 cost containment action accounts for \$2,489 of the reductions. The July 2003 reduction was modest since UMCES is a research institute and has no ability to generate tuition revenue. Furthermore, UMCES had a new facility opening – the Aquaculture and Restoration Ecology Laboratory at Horn Point – that requires additional operating funds. Considering all funds, the UMCES budget increased a fraction of a percent from fiscal 2002 to 2004.

*R30B34 – USM – University of Maryland Center for Environmental Science*

The UMCES budget amounts and changes by program from fiscal 2002 to 2004 are shown in **Exhibit 4**. (These data are for State supported funds only.) Institutional support, including executive management and general administration, decreased by more than one-third. The budget for physical plants also decreased. Public service programs increased 13.3% and research increased 10.5%. These figures show that UMCES has protected its core program – research – in its State supported budget during cost containment. Furthermore, research increased its share of the UMCES State supported budget from 51% in fiscal 2002 to 59% in fiscal 2004.

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**Exhibit 4**  
**State Supported Budget, Changes by Program**

	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u> <u>Working</u>	<u>FY</u> <u>2002-2004</u> <u>% Change</u>	<u>FY 2005</u> <u>Allowance</u>	<u>FY</u> <u>2004-2005</u> <u>% Change</u>
Research	\$7,873,134	\$9,346,604	\$8,696,201	10.5%	\$8,859,555	1.9%
Plant	3,820,702	3,623,080	3,609,929	-5.5%	3,446,575	-4.5%
Institutional support	3,682,450	2,768,586	2,339,116	-36.5%	2,339,116	0.0%
Public service	71,724	68,619	81,250	13.3%	81,250	0.0%
<b>Total</b>	<b>\$15,448,010</b>	<b>\$15,806,889</b>	<b>\$14,726,496</b>	<b>-4.7%</b>	<b>\$14,726,496</b>	<b>0.0%</b>

Source: University of Maryland Center for Environmental Science

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### **Governor's Proposed Budget**

The allowance for fiscal 2005 provides no increase in general funds from the fiscal 2004 level, as shown in **Exhibit 5**.

**Exhibit 5**  
**Governor's Proposed Budget**  
**University of Maryland Center for Environmental Science**  
**(\$ in Thousands)**

	<b><u>FY 03</u></b> <b><u>Actual</u></b>	<b><u>FY 04</u></b> <b><u>Approp.</u></b>	<b><u>FY 05</u></b> <b><u>Allowance</u></b>	<b><u>FY 04-05</u></b> <b><u>Change</u></b>	<b><u>FY 04-05</u></b> <b><u>% Change</u></b>
General Funds	\$13,166	\$13,019	\$13,019	\$0	0.0%
Other Unrestricted Funds	\$5,243	\$4,403	\$4,403	\$0	0.0%
Total Unrestricted Funds	\$18,408	\$17,421	\$17,421	\$0	0.0%
Restricted Funds	\$15,584	\$16,556	\$16,556	\$0	0.0%
<b>Grand Total</b>	<b>\$33,992</b>	<b>\$33,977</b>	<b>\$33,977</b>	<b>\$0</b>	<b>0.0%</b>

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Other unrestricted funds at UMCES are primarily recovered indirect costs related to restricted funds (grants and contracts). The allowance does not assume growth in restricted funds, and so does not assume growth in other unrestricted funds. For restricted funds, the institution typically budgets prior year amounts and uses budget amendments to increase appropriations as necessary. UMCES reports that it expects about \$1 million in new grant and contract awards in fiscal 2005 but, at the same time, other programs are scheduled to conclude.

To accommodate mandatory increases related to salaries, benefits, fuel, and utilities, UMCES primarily has decreased its budget for plant contractual services.

## *Issues*

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### **1. New Aquaculture Lab Severely Affected by General Funds Loss**

In September 2003, the UMCES Aquaculture Restoration and Ecology Lab (AREL) opened. AREL requires \$1.5 million in annual operating funds. UMCES anticipated receiving general funds to fully cover the costs of AREL.

In fiscal 2003, the institution received \$350,000 in general funds for AREL, and it eliminated positions and reduced equipment and service contract expenses to fund another \$200,489 of the budget. In fiscal 2004, UMCES was exempted from contributing \$400,000 to the \$40 million general fund reduction for the University System of Maryland, with instructions from the Chancellor to instead redirect this amount from other areas of the UMCES budget to AREL.

As a result of funding reductions, only 4 of the 10 positions for AREL have been filled, and utilities and equipment have been cut back so the facility is not fully operational. **The Department of Legislative Services (DLS) recommends that the UMCES president comment on whether alternative funding sources could be found for AREL, including indirect cost recovery from grants.**

## ***Recommended Actions***

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1. Concur with Governor's allowance.

## ***Updates***

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### **1. New Budget Report Increases Transparency**

Due to the specialized nature of UMCES, its funding is budgeted in only one program – research. In the 2003 *Joint Chairmen’s Report*, the committees encouraged UMCES to develop a means for increasing the transparency of expenditures related to administration, plant, and public service in the institution’s budget, while minimizing any adverse impact on the institution’s indirect cost recovery rate.

In response, UMCES has provided to the Department of Legislative Services a separate budget report that delineates funds by institutional support, plant, and public service programs as well as research. Additionally, the report indicates how much of the total budget is allocated among the five UMCES locations/major activities: the Horn Point Laboratory, the Chesapeake Biological Laboratory, the Appalachian Laboratory, research fleet operations, and the Maryland Sea Grant College, which is located at the University of Maryland, College Park campus.

## ***Current and Prior Year Budgets***

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### **Current and Prior Year Budgets University of Maryland Center for Environmental Science (\$ in Thousands)**

	<b><u>General Fund</u></b>	<b><u>Other Unrestricted Fund</u></b>	<b><u>Total Unrestricted Fund</u></b>	<b><u>Restricted Fund</u></b>	<b><u>Total</u></b>
<b>Fiscal 2003</b>					
Legislative Appropriation	\$13,865	\$4,215	\$18,080	\$15,456	\$33,537
Deficiency Appropriation	0	0	0	0	0
Budget Amendments	0	1,047	1,047	1,100	2,147
Cost Containment	-700	0	-700	0	-700
Reversions and Cancellations	0	-20	-20	-972	-992
<b>Actual Expenditures</b>	<b>\$13,166</b>	<b>\$5,243</b>	<b>\$18,408</b>	<b>\$15,584</b>	<b>\$33,992</b>
<b>Fiscal 2004</b>					
Legislative Appropriation	\$13,021	\$4,563	\$17,584	\$16,556	\$34,140
Cost Containment	-2	0	-2	0	-2
Budget Amendments	0	-280	-280	0	-280
<b>Working Appropriation</b>	<b>\$13,019</b>	<b>\$4,282</b>	<b>\$17,301</b>	<b>\$16,556</b>	<b>\$33,857</b>

Note: Numbers may not sum to total due to rounding.

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### **Fiscal 2003**

Through budget amendment, the institution increased its fiscal 2003 restricted funds \$1.1 million due to increased federal and State contracts and grants. Also, \$972,405 in restricted expenditures was cancelled because a sizeable grant from the National Oceanic and Atmospheric Administration was finalized later than expected, so spending from the grant was delayed. Unrestricted funds increased by \$1 million through budget amendment due to increased indirect cost recovery on federal and State contracts and grants.

### **Fiscal 2004**

In fiscal 2004, unrestricted funds have decreased by \$280,466 through budget amendment due to decreased indirect cost recovery on federal and State contracts and grants.

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

<u>Object/Fund</u>	<u>FY03 Actual</u>	<u>FY04 Working Appropriation</u>	<u>FY05 Allowance</u>	<u>FY04 - FY05 Amount Change</u>	<u>Percent Change</u>
<b>Positions</b>					
01 Regular	293.02	283.11	283.11	0	0%
02 Contractual	65.48	62.48	62.48	0	0%
<b>Total Positions</b>	<b>358.50</b>	<b>345.59</b>	<b>345.59</b>	<b>0</b>	<b>0%</b>
<b>Objects</b>					
01 Salaries and Wages	\$ 21,172,354	\$ 20,667,100	\$ 21,420,271	\$ 753,171	3.6%
02 Technical & Spec Fees	242,464	30,000	30,000	0	0%
03 Communication	348,708	453,315	443,310	-10,005	-2.2%
04 Travel	766,729	738,047	738,047	0	0%
06 Fuel & Utilities	994,489	1,306,669	1,389,746	83,077	6.4%
07 Motor Vehicles	370,126	552,982	551,528	-1,454	-0.3%
08 Contractual Services	6,676,784	6,764,059	5,997,918	-766,141	-11.3%
09 Supplies & Materials	1,873,390	1,608,012	1,593,789	-14,223	-0.9%
10 Equip - Replacement	0	224,915	224,915	0	0%
11 Equip - Additional	1,017,821	1,091,191	1,063,219	-27,972	-2.6%
12 Grants, Subsidies, Contr	12,074	18,090	18,090	0	0%
13 Fixed Charges	517,081	393,069	376,616	-16,453	-4.2%
14 Land & Structures	0	130,000	130,000	0	0%
<b>Total Objects</b>	<b>\$ 33,992,020</b>	<b>\$ 33,977,449</b>	<b>\$ 33,977,449</b>	<b>\$ 0</b>	<b>0%</b>
<b>Funds</b>					
40 Unrestricted Fund	\$ 18,408,385	\$ 17,421,410	\$ 17,421,410	\$ 0	0%
43 Restricted Fund	15,583,635	16,556,039	16,556,039	0	0%
<b>Total Funds</b>	<b>\$ 33,992,020</b>	<b>\$ 33,977,449</b>	<b>\$ 33,977,449</b>	<b>\$ 0</b>	<b>0%</b>

Note: The fiscal 2004 appropriation does not include deficiencies, and the fiscal 2005 allowance does not reflect contingent reductions.

**Fiscal Summary**  
**University of Maryland Center for Environmental Science**

<u>Unit/Program</u>	<u>FY03 Actual</u>	<u>FY04 Legislative Appropriation</u>	<u>FY04 Working Appropriation</u>	<u>FY03 - FY04 % Change</u>	<u>FY05 Allowance</u>	<u>FY04 - FY05 % Change</u>
02 Research	\$ 33,992,020	\$ 34,139,938	\$ 33,977,449	0%	\$ 33,977,449	0%
<b>Total Expenditures</b>	<b>\$ 33,992,020</b>	<b>\$ 34,139,938</b>	<b>\$ 33,977,449</b>	<b>0%</b>	<b>\$ 33,977,449</b>	<b>0%</b>
Unrestricted Fund	\$ 18,408,385	\$ 17,583,899	\$ 17,421,410	-5.4%	\$ 17,421,410	0%
Restricted Fund	15,583,635	16,556,039	16,556,039	6.2%	16,556,039	0%
<b>Total Appropriations</b>	<b>\$ 33,992,020</b>	<b>\$ 34,139,938</b>	<b>\$ 33,977,449</b>	<b>0%</b>	<b>\$ 33,977,449</b>	<b>0%</b>

Note: The fiscal 2004 appropriation does not include deficiencies, and the fiscal 2005 allowance does not reflect contingent reductions.