

RB34
University of Maryland Center For Environmental Science
 University System of Maryland

Capital Budget Summary

State-owned Capital Improvement Program
 (\$ in Millions)

<i>Projects</i>	<i>Prior Auth.</i>	<i>2016 Request</i>	<i>2017 Est.</i>	<i>2018 Est.</i>	<i>2019 Est.</i>	<i>2020 Est.</i>	<i>Beyond CIP</i>
New Environmental Sustainability Research Laboratory	\$17.104	\$4.531	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000
New Information and Communications Services Building	0.000	0.000	1.000	6.500	6.700	0.000	0.000
Total	\$17.104	\$4.531	\$1.000	\$6.500	\$6.700	\$0.000	\$0.000

<i>Fund Source</i>	<i>Prior Auth.</i>	<i>2016 Request</i>	<i>2017 Est.</i>	<i>2018 Est.</i>	<i>2019 Est.</i>	<i>2020 Est.</i>	<i>Beyond CIP</i>
GO Bonds	\$17.104	\$4.531	\$1.000	\$6.500	\$6.700	\$0.000	\$0.000
Total	\$17.104	\$4.531	\$1.000	\$6.500	\$6.700	\$0.000	\$0.000

CIP: *Capital Improvement Program*

GO: general obligation

Summary of Recommended Bond Actions

1. University of Maryland Center for Environmental Science

Approve continued funding for the New Environmental Sustainability Research Laboratory.

Budget Overview

This project replaces the R.V. Truitt Laboratory, located at the Chesapeake Biological Laboratory (CBL) in Solomons, Maryland, that was constructed in 1973 and closed in March 2008 due to multiple structural and mechanical issues. Prior authorizations totaled \$17.1 million, of which \$2.0 million was construction funding to relocate utilities and demolish Truitt Laboratory. The projected total cost of the project, according to the 2014 *Capital Improvement Program* (CIP), was \$16.8 million, of which \$13.4 million was related to construction. It should be noted that the total cost of the project increased \$1.4 million over the 2013 CIP due to an escalation in the costs associated with relocating the utilities housed in Truitt Laboratory.

The project received total authorizations of \$12.6 million for construction and a pre-authorization of \$0.8 million for fiscal 2016. In August 2014, the University System of Maryland (USM) informed the Department of General Services (DGS) and the Department of Budget and Management (DBM) that the estimated cost of construction increased to \$18.2 million, resulting in a \$4.8 million shortfall and requested the use of \$3.0 million from DGS' Construction Contingency Fund (CCF). The increase in construction cost is attributed to an underestimation by the subcontractors about the special requirements of this project *e.g.*, the requirement that the building and seawater laboratories need special corrosion protection due to the corrosive nature of seawater. Additionally, there was a lack of local general trade subcontractors such as carpenters, plumbers, and mechanical contractors capable of handling this project. Efforts were made to reduce the cost of the project through value engineering, in which \$4.0 million of changes were suggested by the contract manager and architect, but only \$1.5 million was accepted due to concerns by the University of Maryland Center for Environmental Science (UMCES) that the level of reductions proposed in the value engineering effort would impact the durability of the facility.

DGS and DBM sent a letter to the budget chairs dated October 3, 2014, requesting the use of the \$3.0 million from the CCF, which was subsequently approved. When combined with current available general obligation bond authorizations, this provided sufficient funding to award the construction contract. It should be noted that while USM has a history of utilizing internal resources to support capital projects when needed, it put a moratorium on cash-funding capital projects based on the most recent USM financial statement, which reflected narrowing operating margins. The fiscal 2016 capital budget provides \$2.6 million (the remaining \$1.8 million of the \$4.8 million and the pre-authorized \$0.8 million) to finish construction of the project and \$1.9 million to equip the facility.

While Truitt Laboratory was intended to be a running seawater facility, the design did not fully take into account the corrosive nature of seawater flowing throughout the facility, leading to the deterioration of the building. Leaking seawater corroded many of the valves on the water lines, while mechanical system issues – including the inability of the heating, ventilation, and air conditioning system to reduce the high levels of humidity – resulted in the growth of mold and mildew. This led to the university’s Institutional Animal Care and Use Committee to cite CBL on several occasions for deficiencies in vertebrate care, and, in February 2008, required the removal of all vertebrates to other buildings on campus.

The closure of Truitt Laboratory impacted CBL’s capability and capacity to conduct research. Truitt housed 21% of CBL’s research space and provided 45% of the space capable of handling seawater research. Researchers were assigned to one of three facilities in which personnel share space and equipment in laboratories, and an educational laboratory used by undergraduate and graduate students was converted into research space. Since all space at CBL is fully allocated, it limits the ability to pursue research opportunities and attract new faculty and graduate students.

The project will construct an 11,223 net assignable square foot (NSF)/21,455 gross square foot facility that will be designed to take into account the corrosive nature of seawater. It will provide 5,679 NSF of research laboratory and 2,384 NSF of laboratory support space, and 1,292 NSF of office space. This will provide the space necessary to expand research in areas such as landscape and watershed ecology and conservation biology and restoration ecology. UMCES estimates that with the construction of the facility, it will be able to bring in approximately \$2 million in additional research funding annually.

Operating Budget Impact Statement

Executive’s Operating Budget Impact Statement (\$ in Millions)

	<i>FY 2016</i>	<i>FY 2017</i>	<i>FY 2018</i>	<i>FY 2019</i>	<i>FY 2020</i>
New Environmental Sustainability Research Laboratory					
Estimated Operating Cost	0.081	0.138	0.141	0.143	0.146
Estimated Staffing	0	0	0	0	0

Summary of Other Projects in the Capital Improvement Program

New Information and Communications Services Building

Funding for the design and construction of the New Information and Communications Services Building to be located at CBL was deferred from fiscal 2016 to 2017. Funding for design totaling \$1.0 million is programmed in fiscal 2017, with \$6.5 million and \$6.7 million for construction programmed in fiscal 2018 and 2019, respectively. The estimated total cost of the project is \$14.2 million and will house a computer center, an interactive video conference center, and include study and stack space. The current library is not compliant with the Americans with Disabilities Act and does not have sufficient space to house CBL's growing library collection.

GO Bond Recommended Actions

1. Approve \$4.5 million in general obligation bonds to complete construction and equip the New Environmental Sustainability Research Laboratory.