

SUSTAINABILITY INITIATIVES BY STUDENT ORGANIZATIONS FUNDING PROPOSAL

Part I - General Information

Name of Student Organization	Translational Plant Science Graduate Student Organization
Contact/Responsible Person	Marco Enrique Mechan Llontop
Contact Office Held/Title	President
Contact Email Address	marcoeml@vt.edu
Contact Telephone Number	540-8185718

Part II - Project Cost Information

Estimate Cost of this Proposal	\$ 7,500	See Part III.C
Estimated Savings –	\$ 29 in year 1	See Part III.D
Net Cost of this Proposal	\$ 7,471 in year 1	

2 out of 3
stations funded

Part III - Supporting Information

A. Please describe your sustainability initiative and attach supporting documentation.

The Translational Plant Science Graduate Student Organization (TPS-GSO) as part of an interdisciplinary program, represents students from 7 different departments at Virginia Tech. As a student organization, the TPS-GSO develop several activities including discussion seminars, a symposium and retreats that take place most of the time in Latham Hall. This building provides research, office and auditorium space hosting over a hundred VT employees including faculty, staff and graduate students. Here, the TPS-GSO propose to replace and install new refill water drinking fountains in Latham Hall. Currently, this building has several water fountains, however despite efforts to maintain the equipment, their condition is deteriorating, affecting energy consumption and increasing water waste. We noticed that many Latham Hall workers use the water fountains to fill water bottles, which is not convenient with the ancient fountains, increasing water waste. Therefore, we are presenting this sustainability initiative to install new drinking water fountains in Latham Hall in order to improve water quality, minimize energy waste, improve public health, and promote enhanced the use of refillable water bottles by offering an efficient way of refilling them.

B. How does this initiative help to achieve the goals of the Virginia Tech Climate Action Committee Resolution and Sustainability Plan?

The implementation of new and more efficient water filling stations will promote a deeper awareness of environmental stewardship in our Translational Plant Science community including faculty, staff, and students. Also, it will help the University to minimize plastic waste, improve public health and engage our scientific community to efficiently use water and energy. The installation of efficient water filling stations in one of the main research facilities at Virginia Tech such as Latham Hall, will highlight the University's position as a Leader in Campus Sustainability.

C. What is the cost of your proposal? Please describe in adequate detail the basis for your cost estimate.

The total costs for this proposal is \$7,500 and was provided by the Facilities Department Project Coordinator Jim McDaniel. The \$2,500 per unit includes equipment, installation, electrical work, paint & contingency.

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D. Will your proposal produce cost savings for the University? If so, how much? Please describe in adequate detail the basis for your savings estimate.

This proposal will reduce waste-management costs to the university as it will encourage the use of reusable water bottles.

Based on campus analysis a Water Bottle Refill Station Single unit provides water for reusable containers saving an estimated 21,472 bottles annually. This proposal requests funding for 3 stations. Therefore we would expect to save 64,416 bottles annually.

According to the International Bottled Water Association's website, the average gram weight of the 16.9 ounce "single serve" bottled water container is 12.7 grams. The weight of the plastic bottles not used from one water filling station is 272,697 grams per school year. The total weight in grams of the plastic bottles not used from all three proposed water bottle filling stations in one school year is 818,083 grams. There are 907,185 grams in a ton. This results in a weight of 0.9 tons per school year.

$(21,472 \text{ bottles per station}) * (12.7 \text{ grams}) = 272,694 \text{ grams}$
 $(64,416 \text{ bottles}) * (12.7) = 818,083 \text{ grams}$
 $(818,083 \text{ grams}) / (907,185 \text{ grams per ton}) = 0.9 \text{ tons}$

The university pays about \$32 a ton for single stream recycling. . Each year the university will save \$29.
 $\$32 * 0.9 \text{ tons} = \28.86

<p>E. Is this funding request an Ongoing or One-Time change (please check one)?</p> <p style="text-align: center;"><input checked="" type="checkbox"/> One-time <input type="checkbox"/> Ongoing</p>
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<p>F. Is funding available for this request from another source? If yes, describe the funding (source, amount, etc.) No.</p>
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Part IV- Requestors/Reviewers	
Marco Enrique Mechan Llontop President of the Translational Plant Science Graduate Student Association	
Prepared By (Name of Contact for Student Organization)	Date 11/08/2017
Patrick Hilt Director of College Facilities	
Reviewed By (Name of Appropriate University Official)	Date 11/13/2017
Dennis Cochrane, Sustainability Program Manager, Office of Sustainability	
Reviewed By (Name of Office of Energy and Sustainability Representative)	Date 11/20/2017

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Location and water fountains at Latham Hall

Water Fountain in 3rd floor: Next to the elevator door



Water Fountain in 4th floor: Next to the elevator door



Water Fountain in 5th floor: Next to the elevator door

