

SUSTAINABILITY INITIATIVES BY STUDENT ORGANIZATIONS FUNDING PROPOSAL

Part I - General Information

Name of Student Organization	Students for Sustainable Practice
Contact/Responsible Person	Ryan Longman
Contact Office Held/Title	Historian
Contact Email Address	Binky@vt.edu
Contact Telephone Number	540-903-4316

Part II - Project Cost Information

2 out of 3 stations funded

Estimate Cost of this Proposal	\$11,000	See Part III.C
Estimated Savings –	\$ 29 in year 1	See Part III.D
Net Cost of this Proposal	\$10,971 in year 1	

Part III - Supporting Information

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

As Virginia Tech strives to fulfill more sustainability initiatives each year, the students have also become more environmentally conscious within their own practices. Almost every student carries a reusable water bottle with them to stay hydrated throughout the day. Unfortunately, some water fountains on campus are not convenient for refilling water bottles. This is why we are requesting the installation of water bottle refill stations in three Virginia Tech buildings, including: Cowgill Hall (main lobby), Burchard Hall, and the Brooks Forest Products Center. Photos and location of each pre-existing water fountain are attached at the end of this document.

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

The waste of disposable water bottles can be easily avoided by implementing water bottle refilling stations in places convenient for students. The addition of these stations would complement several of the goals in the Virginia Tech Climate Action Commitment Resolution and showcase Virginia Tech's position as a leader in campus sustainability (Goal 1). A water bottle station would help to reduce waste (Goal 8) by encouraging students to bring their own reusable bottle. Students, faculty, and staff will be engaged in sustainable use of energy, water, and materials (Goal 10) and work to provide funding to support sustainability programs.

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

Recommend using the Elkay Water Bottle Refill Station single unit for all three locations. The total project cost of \$11,000 was provided by the Facilities Department Project Coordinator Jim McDaniel who has extensive experience in the placement of water bottle refill stations throughout the campus. The cost per building location is as follows:

- Cowgill Hall: \$6,000 for the unit, installation costs (CMU block), electrical costs, wall painting and contingency.
- Burchard Hall: \$2,500 for the unit, installation costs, electrical costs, wall painting and contingency.
- Brooks Forest Products Center: \$2,500 for the unit, installation costs, electrical costs, wall painting and contingency.

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.

According to the 2014-2015 Academic Water Bottle Refill Station Green RFP prepared by Sustainability @ VT, the water filling station in Squires Student Center and Newman Library were installed in the late spring semester of 2011. The digital counter on the stations was an average of 11,929 bottles per station as of October, 2012. This number represents 5 months of plastic reduction for one water bottle station. One school year (9 months), $[11,929 \text{ bottles} / (5 \text{ months})] * (9 \text{ months}) = 21,472 \text{ bottles per station}$

This proposal requests funding for 3 stations. Using the calculation above, we would expect to have $(21,472 \text{ bottles per station}) * (3 \text{ stations}) = 64,416 \text{ bottles for the 3 stations.}$

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

E. Is this funding request an Ongoing or One-Time change (**please check one**)?

One-time **Ongoing**

F. Is funding available for this request from another source? If yes, describe the funding (source, amount, etc.)

No.

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Part IV- Requestors/Reviewers

Ryan Longman

Prepared By (Name of Contact for Student Organization)

Date 11/16/2017

Jim McDaniel, Facilities Department Project Coordinator

Reviewed By (Name of Appropriate University Official)

Date 2/19/2018

Denny Cochran, Sustainability Program Manager, Office of Sustainability

Reviewed By (Name of Office of Sustainability Representative)

Date 2/19/2018

PROPOSED LOCATIONS



Figure 1: Cowgill Hall, second floor lobby



Figure 2. Burchard Hall



Figure 3: Brooks Forest Products Center