

Converting Dean Hall Paper Towel Dispenser into Efficient Hand Dryers

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Introduction

Paper waste accounts for roughly 35% of US municipal Solid waste, driven in part by single-use non-recyclable products like paper towels. To address this, a student-led project replaced paper towel dispensers with electric hand dryers in the Student Union and Recreation Center (SURC). With funding from the SGF, totaling \$14,600, the project replaced multiple units on the first floor of the SURC with energy-efficient Dyson Air Blade V units. Since their installation, the SURC is on track to prevent approximately 7,527 pounds of paper waste from entering landfills each year – equivalent to saving 64 trees and more than 75,000 gallons of water from being harvested. Financially, in just the SURC alone, this project will save an estimated \$9,000 on paper towel costs and extra expenses. This project expands on the past success in Dean Hall by using similar strategies and ideas.



Figure 1, Showing the location and usage of paper towels in the first-floor bathrooms of Dean Hall -note the full garbage bag of only paper towels.

Timeline

- April 2026
 - Met with Nathan Wells, who started the project in the SURC
 - Emailed David Hall from facilities about the budget and installation
 - Contacted Jordan Spradlin about the Student Green fund and budgeting
- May 2026
 - Applied and presented to the Student Green Fund Committee
 - After funding approval, the Units were ordered, and a work order was put in
- June-Late Summer 2026
 - Upon arrival, install new Units
 - Hang informational flyers with the survey QR code next to each new unit.
- Fall Quarter of 2026
 - Assess survey results

Environmental Impact

- The Dean Hall project will decrease the amount of paper waste CWU produces by 768 pounds annually.
- The prevented waste is equivalent to 6 and a half trees and 7,680 gallons of water every year. 65 trees and 76,800 gallons after just 10 years of implementation. That's a small forest with a reasonably sized pond.
- Cutting paper towel usage also cuts transportation emissions and plastic bag waste produced from Central.

Social Impact

- The Dyson Dryers are equipped with HEPA filters that trap 99% of bacteria, preventing the spread of disease and increasing hygiene.
- Motion-activated and very effective, increasing user satisfaction.

Economic Impact

- Every year, Dean Hall alone spends \$1,302.26 on paper towels.
- After the electricity cost, converting to electric hand dryers will save Dean Hall about \$1,200 every year.

Dean Hall Waste Over 10 Years

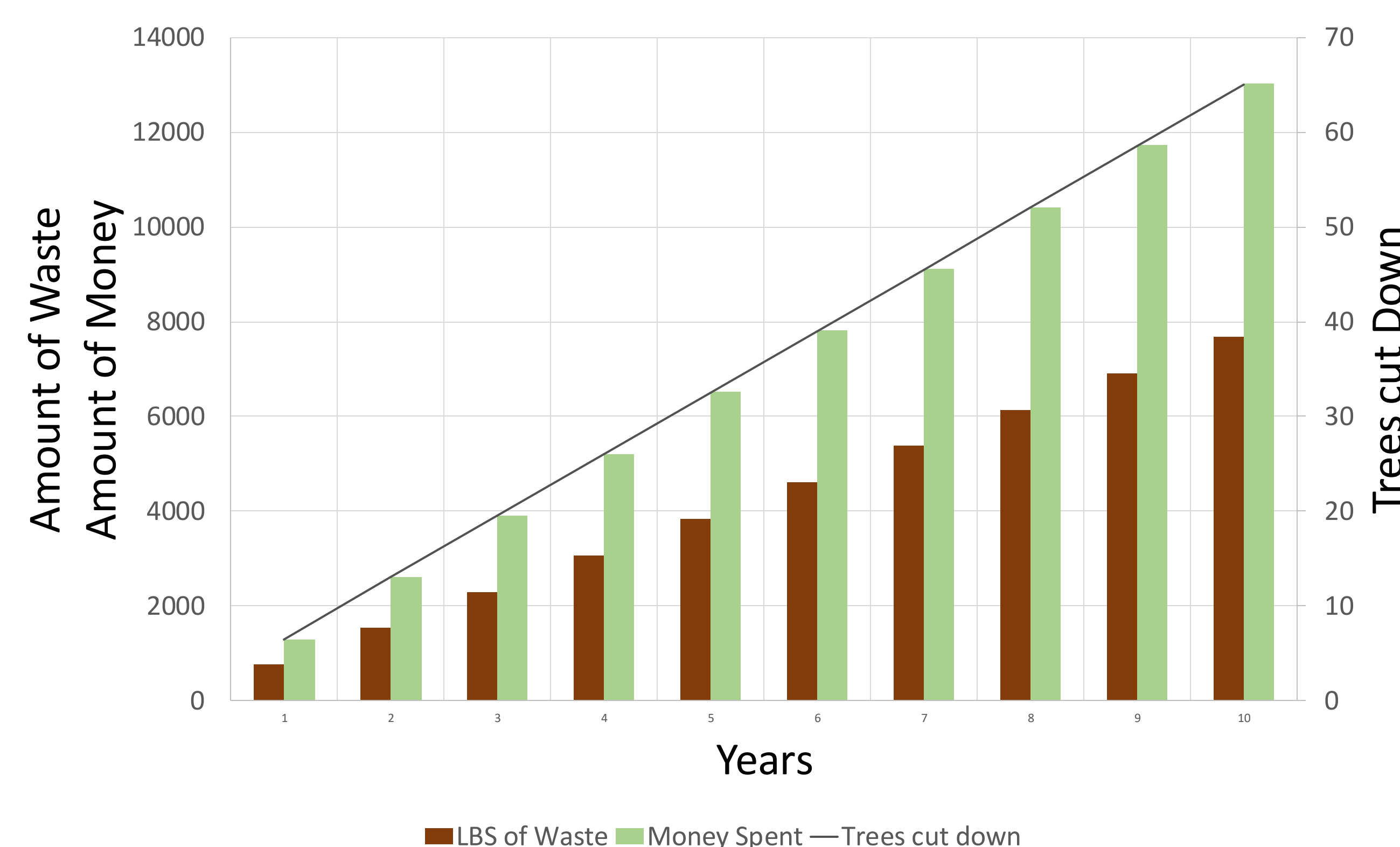


Figure 2, showing the pounds of waste (brown), money spent (light green), and trees cut down (dark green line), for paper towel usage over the course of 10 years.

Recommendations

The project has demonstrated clear potential for broader adoption. Building on the SURC implementation led by a previous student and funded by the SGF, the next stage brings the model to Dean Hall. Further expansion is recommended for Samuelson Hall, Black Hall, Discovery Hall, the Science Building, and the remaining buildings that continue to use paper towels.



Figure 3, Image of the Dyson Air Blade V that has been installed in the SURC and will be Installed in Dean Hall.

This Project Supports UN Sustainable Development Goals:



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