

Green Fund

2018-2019 Academic Year

Projects Funded



Water-Efficient Toilets in Residence Halls

As part of an environmental sustainability engineering course (CEE421), a team of undergraduate students worked with staff in the Office of Sustainability and University Housing to conduct an inventory of the flow rates of toilets in 11 residence halls across campus.



Students and staff conducting the toilet inventory

The students identified 82 toilets that used 4.5 gallons per flush (gpf), and they requested \$17,200 to replace these toilets with ones that used 1.6 gpf. Over the 20-year life span of the new toilets, University Housing will save an estimated 410 million gallons of water, 2.8 million pounds of CO₂ emissions, and \$2.5 million in utility bills.

The Green Fund covered all material costs, University Housing covered labor costs, and FP&M staff provided skilled labor for the installation. Staff worked with a local aggregate crusher to recycle the porcelain from the outdated toilets rather than sending it to the landfill.

This project built on the success of an earlier Green Fund project that replaced 41 toilets in the Tripp Residence Hall.

Cardboard Compactor Gordon Dining

Students worked with Waste and Recycling, University Housing Dining and Culinary Services, maintenance, and custodial staff to add a 40-yard cardboard compactor to the dock of Gordon Dining and Event Center. This proposal responds to shifts in international markets for recycled commodities that impose significant restrictions on contamination and greatly reduce profitability.

This compactor will allow Gordon to separate cardboard from other recycling streams, generating \$20 per ton rather than combining that same cardboard with mixed paper and paying \$70 a ton.

Students researched solutions, ran impact calculations, gathered logistical constraints from staff, and designed a communications campaign to train student workers at Gordon in proper waste sorting to ensure a clean and profitable recycling stream.



Staff and students discussing logistics at the Gordon loading dock

Questions? Please contact

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Lab Glove Recycling at Hanson Biomedical Research Labs

A post-doctoral researcher worked with his building manager, fellow researchers, and Environmental Health and Safety staff to propose a lab glove recycling program in the building that will divert over 16,000 gloves from the landfill over the course of two years.

Green Fund staff will work with the team to collect data and best practices to share with other labs on campus interested in incorporating this into their facilities and research budgets.



Students preparing buckets and signage to collect lab gloves

Lighting Retrofit at Gordon Dining

Members of Helios, a student organization, worked with University Housing staff and representatives from Focus on Energy to identify lighting solutions that will save 2.6 million kWh and \$290,000 in utility costs over the life of the bulbs for an upfront cost of \$15,000.



Student teams forming at the Green Fund Spring Kickoff event

Lighting Retrofit in Slichter Residence Hall Bathrooms



Slichter team on site

A student in Slichter Residence Hall worked with University Housing to install energy-efficient LED bulbs in all of the bathrooms of this building. He collected data, researched options, and coordinated with an off-campus partner, Focus on Energy. Concurrently, the student enrolled for directed study credits with a faculty mentor and presented a poster at the 2019 Undergraduate Symposium.

Gordon Solar

Although the Gordon Solar Photovoltaic project was funded by the Green Fund in the 2018 spring semester, the student team continued its work with staff through the summer and 2018-2019 school year to complete the job. The team celebrated the first kWh of energy produced from the rooftop system in March 2019.



Students together with staff from University Housing, FP&M, and the Green Fund with the newly commissioned solar panels



Students and staff investigate adding a data logger to the solar thermal system at Leopold Residence Hall



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