



# Tufts University GREEN FUND

## Green Fund Application Revised Proposal

**Project Name: FLOWGREEN x Tufts**  
**Submitter: Mia Nixon, Tufts 2021**

*The committee has asked for information about your project before, but this revised proposal offers you a chance to synthesize all of the changes you have made to your project based on the committee's feedback into a revised proposal.*

*Please comprehensively answer the questions in this document. Once complete, please send to [GreenFund@tufts.edu](mailto:GreenFund@tufts.edu).*

1. What is your role at Tufts?

Undergraduate student, graduating May 2021

2. What school are you involved with at Tufts?

School of Engineering

3. Please provide a 300-350-word description of project.

FlowGreen capitalizes on QR code and landing page technology to make recycling information and options readily updated and accessible for Tufts community members, encouraging both a greener campus and a community committed to Zero Waste.

People don't know what to recycle because the rules change among municipalities, universities, and states. Have you ever been in a situation where you don't know whether the item you're holding can be recycled? My Green Fund project would outfit all campus recycling bins with visible QR-codes directly linked to local recycling guidelines. Students, faculty, staff, and campus visitors use smart phones to quickly scan the circular QR code ("Flowcode") for information regarding town recyclables. These FlowGreen stickers will promote engagement around proper recycling and help minimize the waste created by traditional flyers and pamphlets. I conceived of this project while interning with a startup that specializes in QR codes and am already working to establish this idea in my hometown.

Currently, Tufts has a long scrolling page that describes how and what to recycle. A QR code is a central information station where a student can find relevant answers immediately. The main effort behind the project's launch would be identifying, educating, and engaging stakeholders through a campaign starting in early 2021 about the benefits of recycling, pride in a green and digitally-forward campus, and the simplicity of using your smart phone to streamline recycling activity. A contest, virtual scavenger hunt, or geocaching (Cache In Trash Out is a trademarked environmental initiative) could make the initiative compelling and fun!

The technology is available and easy to use; the QR code stickers are inexpensive to create and replace; maintenance involves Facilities reporting on damaged/missing QR codes and the Tufts OOS updating the site with recycling criteria changes. The project needs no extra funding beyond QR code replacement, and success can be monitored through recycling contamination rates and digital clicks. Each new Tufts class, as part of their first-week events, would learn how to interact with the QR coded trash bins, which could become a symbol of a shared commitment to the environment and each other on campus.

#### **4. What is the timeline of your project and how will you measure success?**

**January:** Organize meetings with stakeholders, including people who understand any public health, union regulations, and/or legal issues. Work with Office of Sustainability and IT to establish technology and procedures for linking the customizable QR Code. Meet with Facilities to determine which bins and size/location/number of QR codes.

**February:** Organize meetings with campus groups to discuss engaging students/advocacy, work with art school to design website page, branding and flyers.

**Early March:** Order QR stickers for bins

**Late March:** Launch as part of campus-wide Spring Clean & Green event. Campaign would include campus green groups collaborating to educate the Tufts community on campus recycling and how to properly use the QR-codes.

**April:** Record clicks and evaluate impact; write up report how to scale pilot project, revise budget or raise funding related to practical knowledge gained from launch as well as to replace QR stickers, flyers, keep up website tab. Monitors would be set up at spring conferences, Jumbo Days, sports events, etc. depending on COVID limitations at the time.

**May:** Expand project to other parts of campus in expectation of commencement. Reach out to Medford and Somerville to discuss expanding the project to the town. **Commencement and other spring events allowed during COVID.**

**Measuring success:** I would like to add steps after implementation to monitor recycling contamination rates (already measured by Tufts OOS), evaluate improvements, and measure success. Much of this can be done by analyzing clicks (the QR code tracks how the number of

scans), and surveying Facilities and the community every year for feedback. Ideally, I would measure success by an increasing number of scans, and a decreasing recycling contamination rate. The Eco-Map of Tufts, which includes recycling dumpsters and outdoor recycling stations, could also show bins in a way that counts clicks, too.

<https://www.google.com/maps/d/u/0/viewer?mid=1Zdi-PtSileX13Biv-FW3LPzgzWE&ll=42.40641300371593%2C-71.11610460984497&z=17>

**How many people in each of these categories will your project impact? Please provide an estimate of the number of impacted individuals. Categories:**

- a) Students 11,878 (# of Tufts students as of Fall 2019)
- b) Faculty 1,910 (# of Tufts faculty as of Fall 2019)
- c) Staff 3,498 (# of Tufts staff as of Fall 2019)
- d) Alumni 119,790 (# of Tufts living alumni/ae that could visit campus or feel pride in school's green leadership) - <https://provost.tufts.edu/institutionalresearch/files/Fact-Book-2019-20.pdf> p. 107

Recycling is an essential function and service for the Tufts community across three US campuses, spanning hundreds of acres and including 233 buildings and multiple 14 dining facilities. Though we would start in a limited number of areas, the opportunity for expansion and impact is huge.

**5. How much funding are you requesting from the Green Fund and are you seeking funding from other places? Please attach an itemized budget (use template provided).**

I seek \$60 initially, and \$3000 after a successful pilot, in funding from the Tufts Green Fund to implement this project on the Tufts campus. No other funding has been requested. The costs are associated with designing and printing code stickers as well as labor to place and maintain the stickers.

**6. Who will be actively working on this project with you? If you are collaborating with others, list their information in the table below (add rows if necessary). You must provide letters of support from each person involved in the project - please attach them (optional template provided):**

Name	Affiliation: (student/faculty/staff/other and school)	Contact email	Letter of support attached?*
Kristen Kaufman	Staff: Recycling and Waste Reduction Coordinator	recycle@tufts.edu	YES
Gary Hill	Staff: Facilities for Campus Services Director	gary.hill@tufts.edu	YES

\*Their letter of support should clearly state how they will be involved in the project and include their signature (can be digital).

7. Who are your project stakeholders? According to the Project Management Institute, the term project stakeholder refers to "an individual, group, or organization, who may affect, be affected by, or perceive itself to be affected by a decision, activity, or outcome of a project."

**Office of Sustainability**

Kristen Kaufman, Recycling and Waste Reduction Coordinator

**Facilities Services**

Gary Hill, Facilities for Campus Services Director (QR code size/placement/number)

**Tufts Informational Technology Department**

Website and other technical management and update maintenance

**Eco-Reps**

Assist with product management and communications (ex. flyers and advocacy)

8. If you received additional questions from the committee, please include the questions and answers below:

A. Can you elaborate clearly how this project will benefit the Tufts community?

This project will benefit the Tufts community in several ways:

Greener campus by reducing waste through proper recycling education and management in a streamlined, inexpensive and user-friendly way.

Further unite the campus community in a shared commitment and understanding of recycling habits and rules. Site can be updated with new rules or criteria as well as fun ways to educate and engage the community.

Pride in the school as a Thought Leader in working to solve the Zero Waste challenge in an innovative yet low-barriers-to-use way. Can be scaled to other campuses and municipalities.

Raise the public engagement STARS Score for Tufts, currently at 12.18/20.00, and possibly the Operations/Waste score, currently at 4.95/10.00. It would also help the goal of the Campus Sustainability Council to reduce waste by 3%/year in that it targets waste reduction, through waste management strategies and behavior change.

A positive update to alumni interested in how Tufts is adjusting to a changing global dynamic and the next generation's social impact advancement.

B. Will this link to the OOS website so that any changes in recycling policies would be updated in a timely fashion? If this indeed is approved, what is the plan to monitor if it has any implications on Tufts waste score/reduction of waste?

Yes, ideally this would link to the Tufts OOS website so that any changes in recycling policies would be updated. The QR code is dynamic, which means the material presented on your device once you scan the code can be changed on the backend without having to change the actual QR code (so the sticker won't have to be replaced each time there is an update).

As there is no prior basis as to how many students currently recycle on campus. This QR code would provide us with a baseline of how many students are interested in learning about recycling on campus (by tracking # code scans over a designated time period) as well as evaluating if there is an increase in student interest overtime (by increased code scans).

I would definitely want to look further into evaluating how increased student interest in recycling education effects Tufts waste score and am in contact with the OOS to understand how this can be tracked and measured.

**C. It seems that there wouldn't be too much work to be done after the code and app is developed, but do you have a plan of maintenance or someone who can solve issues?**

I plan to cooperate with Tufts OOS and Facility Services, which manages the Tufts Recycling & Waste Management program, in terms of ongoing maintenance of the codes (i.e. replacing a sticker if a bin is replaced). There wouldn't be much work after the code is designed and placed on the bin.

**D. Cost per bin? How would the system be maintained?**

The code would be placed on existing bins, so the cost per bin only has to do with the cost per designing, printing, and maintaining the code and any necessary material to affix it to the bins. I would estimate the cost per bin to be around \$2.

The only maintenance required is updating the backend of the code to reflect the real-time recycling rules for Tufts as well as replacing a code sticker if needed (but I don't believe this will be common, as it should be similar to a car bumper sticker and last until it is physically removed. The FLOWGREEN app would have easy to read visuals, FAQs and guidance specific to where you are located at that time. No peeling or washed out pictures and, if the bin is full, a map of where the closest next bin is located.

As the community becomes more comfortable with the Tufts Mobile App and using their smart phone to access information and guidance on campus guidelines and procedures, the Flowcode will be a natural addition to the shared ethos of wellbeing and community acceptance of a healthier, more sustainable future.