



GREEN FUND

Sustainability Through Student Innovation

Paper Product Waste Mitigation Project Proposal

Reducing campus waste through student involvement



Proposed by **Andrew Nettels**, Treasurer of the Green Fund at Northern Arizona University

Mentored by **Andrew Iacona**, Project Manager Sr at Facility Services

Project Contact Information

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Sponsoring Department: *Facility Services at Northern Arizona University*

Project Name: Paper Product Waste Mitigation

Funding Department: *Facility Services at Northern Arizona University*

Funding Requirements & Review Process

Green Fund Mission Statement: “The NAU Green Fund promotes student participation in and provides funding for projects that reduce NAU’s negative impact on the environment and create a culture of sustainability on-campus.”

Requirements for Funding:

- The project must be implemented on campus.
- The person submitting the project must be a NAU student, faculty, or staff member.
- Projects must provide all necessary documents, letters of support, and authorizations prior to submission.
- The Green Fund distributes funding on a **reimbursement basis**. Project teams should partner with an administrative office to provide upfront funding for the project. Once the project has been successfully completed, the Green Fund will reimburse the administrative partner.
- All project applications should be submitted to greenfund@nau.edu for review.

Disclaimer: All applications will go through a comprehensive vetting process. We highly recommend meeting with a Green Fund Committee member prior to submitting the application. The Green Fund Committee member will assist you with every step of writing your project application. If your project is approved, you may be asked to provide more detailed information regarding specific deliverables. The Green Fund is not responsible for acquiring the necessary permits, permissions, or approvals for a project, although we are happy to assist with this process if needed. Additionally, the Green Fund does not provide any ongoing maintenance costs. A sponsoring department must take responsibility for operations and management.

Review Process: Upon project application submission, the Green Fund will review your project within two weeks. At this time, the Green Fund will provide comments on the project. Incomplete applications will not be reviewed until all components are submitted. **Note:** The Green Fund Committee only meets during the academic year. All projects submitted outside of the regular academic year will be reviewed at the start of the next academic session.

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Executive Summary

The Paper Product Waste Mitigation Project will have the potential to save the university thousands of dollars per year through a massive student outreach campaign. In accomplishing this, the project will specifically uphold the mission statement of the Green Fund by involving the entirety of the student population in its implementation, while further contributing to the established culture of sustainability at the Northern Arizona University. The proposed project endeavours to accomplish this at no cost to the Green Fund, or the University as a whole. While this may appear ambitious, the project is capable of achieving this by amassing a large group of student volunteers through an extensive public outreach campaign.

Purpose

The *Paper Product Waste Mitigation Project* seeks to change overall consumption habits of paper towel users at Northern Arizona University. The project will provide this change by implementing sustainability awareness stickers within the restrooms of over 50 state funded buildings on campus. Specifically, the stickers are manufactured by the group “these come from trees”. The group, founded by Peter Kazanjy, started as an experiment in environmental activism, viral marketing, and user interface design. For over a decade, hundreds of institutions, organizations, restaurants, hotels, public facilities, and other businesses have successfully implemented these stickers.

Consumer Interaction & Psychology

While we may not realize it, paper towel usage is a major contributor to our environmental footprint, not just as individuals, but collectively as an institution. “Every day 51,000 trees are cut down to support North America’s paper towel habit” (Norwex, 2012). Many who may be quick to discount this statistic subscribe to a common thought: “I am just one person, and as an individual it is statistically unlikely that my contribution towards solving this problem makes any difference”. However, individual usage does matter, and the *Paper Product Waste Mitigation Project* will influence user psychology for the purpose of changing consumption habits at the individual and University level.

The stickers themselves will send psychological signals, or “nudges” to paper towel users in University restrooms. In examining the underlying conservation behaviours of these users, the ‘Value Belief Norm’ (VBN) theory, must be briefly considered. “The VBN framework provides a model for understanding acts of mundane environmentalism by individuals” (Bogner, Hubner, et. al 2005). When an individual violates their Value Belief Norms, they contradict their own ecological worldview. Essentially, an individual contradicts their own predetermined

environmental values and beliefs, often beliefs they were taught. By providing individuals with a simple reminder, the “thesecomefromtrees” stickers provide users with a brief venue for self reflection. Feelings of guilt, or waste may arise from this momentary reflection, prompting the individual to use fewer paper towels.

Multiple studies validate this psychological phenomenon, and have shown that providing these informational nudges to paper towel users reduces overall consumption habits. One such study that utilized data recording devices in a collegiate environment found a strong correlation between consumer nudges and a meaningful paper towel reduction rate, “the study found consumers used ~0.5 less paper towels, with approximately 40% using only one paper towel” (Haines, Winckler, et. al 2005). This finding supports the statistic guaranteed by the “thesecomefromtrees” group, “institutions can experience up to a 29% reduction rate when implementing the stickers” (Kazanly, 2009). Thus, implementing these stickers at Northern Arizona University will create a reduction rate. While the parameter value of this rate may be unknown, any rate is meaningful for this project and the University.

Campus Wide Involvement

Successfully creating a reduction rate only represents half of the project’s purpose. “This project represents more than reducing paper towel usage, and is an opportunity for a massive campus awareness campaign” (Hendershot, 2021). The project ventures to achieve its objectives of both awareness and zero cost through amassing a large group of student volunteers, while bolstering student participation with sustainability on campus. While the project seeks to reduce paper towel usage, it will also foster student participation with the Office of Sustainability on campus, and its many initiatives. During a time of decreased student involvement due to the pandemic, this objective of the project is particularly important.

Conclusion

In conclusion the impact Paper Product Mitigation Project will not be limited to Northern Arizona University. The project serves as a case study for student implementation, and the results of the project will be sent to other universities that were contacted during the development of this proposal. The project will have the potential to save Northern Arizona University thousands of dollars per year through its campus-wide implementation. In achieving its implementation, the project will increase student awareness and involvement with sustainability on campus. The subsequent sections of this proposal will provide specific findings and data to substantiate its claims.

Project Components

1. Does your project require space or construction on campus? If so, where? Please review the “Space Committee Document” located on our website and follow the steps to begin requesting a location.

The Paper Product Mitigation Project will utilize a small space within the reception area of the Facility Services Building (#77), located at 545 E Pine Knoll Drive, Flagstaff AZ 86011. Use of the front reception area has been approved by Mr. Andrew Iacona, Facility Services Project Manager, Sr.

2. Have you obtained all necessary approvals for this project? Please attach letters of support to the proposal document. If any outgoing operations and maintenance is required of your project, provide a letter of support from the entity that will be covering those costs and/or services.

All necessary approvals have been obtained for the *Paper Product Mitigation Project*. Facility Services is the sponsoring department of this project. A letter of support from Facility Services is included in Appendix A of this proposal. In addition to the letter of support, a letter of approval from University Marketing is also included within Appendix A. The letter of approval from University Marketing specifically extends permission to all participants of the project to post the stickers within any state funded University building. It is important to note that building managers do not have to grant permission for the posting of the stickers within their buildings.

3. Will this project provide funding for student wages?

The *Paper Product Mitigation Project* will not directly provide funding for student wages. Instead, the project will encumber a reserve fund for potential student wages. The encumbered amount within the reserve fund will only be accessible to the project by a majority vote of the Green Fund Committee. Any student employee on payroll within the Office of Sustainability will be eligible to apply for the reserve fund, should it be enacted by the Green Fund committee. Specific mechanisms of the reserve fund are further examined within the *Funding* section of the proposal.

4. Please list additional sources of funding you have pursued. Include departments, grants, ASNAU, Graduate Student Government, etc.

No additional sources of funding are required for this project. The low amount the project seeks to encumber does not warrant any additional funding sources.

5. Have any of the Green Fund Committee members been involved in the project? If yes, please identify all committee members?

The treasurer of the Green Fund, Andrew Nettels is the project coordinator. Additionally, the Business Manager of the Green Fund Committee, Mr. Iacona, is the project mentor. During past committee meetings, all committee members were extremely helpful in offering feedback to the project during its development phase.

6. When your project members no longer attend Northern Arizona University, who will be responsible for running the project?

Andrew Nettels is currently a junior. The project should not extend past the Spring Semester.

Public Outreach Plan

Detail the public outreach plan. How will faculty, staff, and students learn about this? Are you working with groups on or off campus? If so, describe your partnership.

The multifaceted public outreach plan for the *Paper Product Mitigation Project* is examined in this section. While extensive, the plan upholds one of the primary objectives of the project: to include the entire campus community in its implementation. When developing the public outreach plan, Andrew Nettels reached out to Dr. Sarah L. Keller, American Biophysicist and University of Washington Distinguished Professor. Dr. Keller was instrumental in the implementation of “thesecomefromtrees” stickers at the University of Washington, and recommended pursuing multiple University-level articles to spread awareness about the project.

Section I: Collaboration with Media Outlets

During the proposal phase of the project, several media outlets were contacted. This section will detail media outlets that have currently agreed to publish articles promoting the *Paper Product Mitigation Project*. This section also contains additional media partnerships that are currently being developed, and future partnership goals.

(1) *NAU News* (<https://news.nau.edu>): *NAU News* is Northern Arizona University’s official source for all University news.

Andrew Nettels contacted *NAU News* for the purpose of promoting the *Paper Product Mitigation Project* to the entirety of the student body. Jacklyn Walling, Creative Writing MFA

Candidate and University Communications staff member, has agreed to write an article about the *Paper Product Mitigation Project*, and its implementation for the *NAU News* website.

(2) *The Lumberjack* (<http://www.jackcentral.org>): *The Lumberjack* is Northern Arizona University's student-run newspaper. *The Lumberjack* has both a website and print version.

Andrew Nettels contacted *The Lumberjack* for the purpose of promoting the *Paper Product Mitigation Project* to the student population. *The Lumberjack* has been the "voice of the students" since 1914. Olivia Charlson, Assistant Features Editor, is currently in the process of requesting a writer for the project and will be contacting Andrew Nettels for specific project details. The article will likely detail the project, encourage students to volunteer for the implementation process, and will include photos to advertise the project.

(3) *The Arizona Daily Sun* (<https://azdailysun.com>): *The AZ Daily Sun* is a 6-day daily newspaper in Flagstaff, Arizona.

A story by *The AZ Daily Sun* is not guaranteed. Andrew Nettels recently met with one of his faculty mentors, Chef Mark Molinaro, Senior Lecturer at the School of Hotel & Restaurant Management. In a recent meeting, Chef Molinaro provided Andrew Nettels with the contact information of a reporter at *The AZ Daily Sun* with whom he has a close professional relationship with. Andrew Nettels has reached out to this contact, and is awaiting a response.

(4) *NAZ Today* (<http://www.naztoday.com>): *NAZ Today* is Northern Arizona's exclusive television news source.

Andrew Nettels contacted *NAZ Today* to request an interview for the project. An interview with *NAZ Today* would spread awareness of the project on campus. *NAZ Today* has interviewed members of the Green Fund in the past. Andrew Nettels is awaiting a response from *NAZ Today*, and will reach out to a personal contact at the station if the response is delayed any further.

(4) Future Partnership Goals: During the implementation of this project, Andrew Nettels will continue to reach out to any media sources that can assist with the publicity of the project. Going forward, the two current media partnerships will adequately spread awareness of the project to the student body.

Section II: Social Media Campaign

(1) *NAU Social Media Office* (<https://in.nau.edu/social-media/>): Upon approval of the project, Andrew Nettels will contact the *NAU Social Media Office*. The office manages the “@nauflagstaff” instagram account. The account currently has 57,400 followers. By pursuing a partnership with this account, the project will be able to advertise its student volunteer signup form. This collaboration would likely produce the largest amount of prospective student volunteers. Importantly, these student volunteers would represent a wide range of studies and undergraduate programs, furthering the reach of the project to students who are non-sustainability majors.

(2) In collaboration with subsidiary organizations within the *Office of Sustainability*, Andrew Nettels will contact the social media coordinators of the organizations’ Instagram accounts. Partnering with the social media accounts of these organizations will allow the project to acquire passionate, sustainability-oriented volunteers.

Section III: Partnership with Greek Life

(1) Andrew Nettels is the current Vice President of both the Inter Fraternity Council, and the Theta Chi, Iota Kappa Chapter on campus. By utilizing his connections with multiple Advisors from *The Office of Student Life*, Andrew Nettels will source student volunteers from 3 greek councils, collectively comprising 31 on-campus chapters. Andrew Nettels recently spoke with one of his connections within *The Office of Student Life*, Advisor Kevin Gemoets, Director of Student Life. In a meeting, Advisor Gemoets expressed interest in the project, and offered to publicize the project in his weekly email to every fraternity, sorority, & culturally based fraternal organization on campus. This will bring in student volunteers from Greek Life.

(2) Additionally, Andrew Nettels will individually email chapter presidents the student volunteer form. This will further assist with publicizing the project within the Greek Community.

Section IV: Collaboration with the Office of Sustainability, & Subsidiary Organizations

(1) Within *The Office of Sustainability*, Andrew Nettels will reach out to members of the Green Fund, and non Green Fund members within the office. *The Office of Sustainability* will likely be the most reliable source of student volunteers, as sustainability members have demonstrated their enthusiasm for both the project and sustainability. Specifically, Andrew Nettels will reach out to student workers during *The Office of Sustainability* work retreat, weekly Green Team meetings within the office, and Green Fund meetings.

(2) In addition to collaborating with *The Office of Sustainability*, Andrew Nettels will reach out to subsidiary organizations and clubs within the office. Some of these organizations include: *Sustainable Communities*, *NAU Green Fund*, *NAU Green Jacks*, *Green Collective Community*, *Thrift Jacks*, and *Sustainable Ambassadors*. In collaborating with the boards of these organizations, Andrew Nettels will encourage participation from their members in the implementation of the project.

Section V: Miscellaneous Public Outreach Sources

(1) Upon approval of the project, Andrew Nettels will send out emails to service based organizations within *True Blue Connects*. By contacting these organizations, the project will widen its outreach to students interested in volunteering on campus.

Environmental Impact

Environmental Costs & Benefits

The *Paper Product Mitigation Project* produces minimal environmental costs. The primary costs associated with the project are student transportation to the sticker pickup location, and student transportation around campus when implementing the stickers. To mitigate these environmental costs, Andrew Nettels will pair student volunteers with their preferred buildings, thus, reducing the need for automotive transport as these buildings will be within walking distance of student volunteers.

The primary environmental benefit of the project is reducing paper towel usage across campus. According to the “thesecomefromtrees” blog site, “from our field testing, each sticker deployed saves about a tree’s worth of paper (~100 lbs.) per year” (Kazanji, 2009). Additionally, the stickers produce up to a 29% proved reduction rate in paper towel usage. As is later exemplified in this proposal, even a small fraction of that rate would prove more than effective in mitigating the environmental impact of paper towel usage across campus.

Relationship to Climate Action Plan (CAP)

The *Paper Towel Mitigation Project* meets the Waste Minimization and Communication goals of the Climate Action Plan. The project will reduce the overall amount of paper towels used on campus in the long run. As campus consumption decreases at any significant rate, buildings will purchase less paper towel products over time. The project also increases communication and awareness on campus. During the development of the proposal, other institutions exchanged information regarding their implementations. After the completion of this

project, other institutions will be provided with the results and mechanisms of the project. During the global pandemic, student participation in sustainability initiatives has decreased. This project will increase student participation, and encourage students to get involved with the Office of Sustainability and its many subsidiary clubs and organizations.

AASHE Star Compliance

The Association for the Advancement of Sustainability in Higher Education (AASHE) maintains the “AASHE Stars” program, which provides a framework for higher education institutions to monitor their sustainability compliance in various categories. As of September 28th, 2020 Northern Arizona University has a “Gold Star” rating. The *Paper Product Mitigation Project* can be applied to AASHE categories EN-5 and EN-4. In the past, both the University of Washington, and Appalachian State University have included their implementations of “thesecomefromtrees” stickers within these categories. Northern Arizona University will be also able to include this project to add to its AASHE “Gold Star” rating.

Cost Benefit Analysis

The proposal utilizes University purchasing data from the past 2 years to construct a cost benefit analysis. This data encompasses both classifications of paper towel products within buildings at the University: (1) Multifold Towel Units, and (2) Roll Towel Units. Due to the abundance of variables that impact campus-wide consumption habits, the true value of the reduction rate is unquantifiable. Due to these variables and reduced paper towel usage during the global pandemic, this project will assume a parameter value of 14.5%, as opposed to the proven 29% reduction rate. For the purpose of providing an accurate cost benefit analysis, the 14.5% reduction rate is applied to both pre-pandemic (2019) and post-pandemic (2020) data sets within this section.

Pre-Pandemic (2019) Data

During 2019, a total of 3,016 Roll Towel Units, and 296 Multifold Towel Units were purchased on campus. The price per unit for Roll Towels is \$29.76, and \$28.71 for Multifold Towel Units, totalling a combined cost of \$98,254.32. Applying the 14.5% reduction rate to this total indicates savings of \$14,246.87. In the interest of representing values above and below 14.5%, a (1% - 29%) range for this date set has been provided in *figure 1*.

Post-Pandemic (2020) Data

During 2020, a total of 1,782 Roll Towel Units, and 214 Multifold Towel Units were purchased on campus, totaling \$59,176.26. The pandemic has caused a 60% decrease in overall paper towel consumption on campus. Applying the 14.5% reduction rate to this total indicates savings of \$8,580.56. In the interest of representing values above and below 14.5%, a (1% - 29%) range for this data set has been provided in *figure 2*.

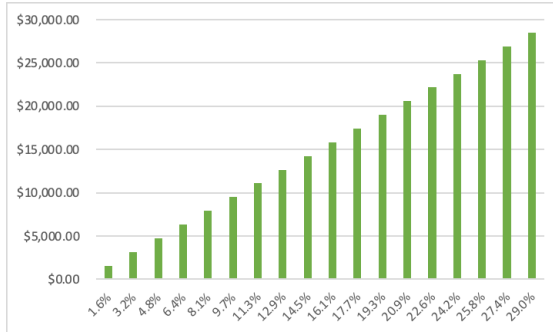


Figure 1

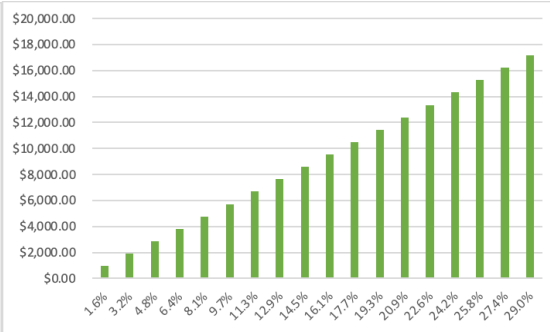


Figure 2

Analysis

In examination of the costs and benefits of the project, the benefits far outweigh the potential costs. Considering the zero cost objective of the project, any monetary benefit received from the project at the University level will contribute to the success of the project.

Funding

The cost objective of the *Paper Towel Mitigation Project* is to successfully implement the project on campus without spending any of its funds. The project will accomplish this through the use of student volunteers for its campus-wide implementation. Despite organizations already partnering with this project, it is necessary to encumber funds for the project. Funding for the project will comprise of 2 general funds: a fixed cost fund, and a reserve fund. The project is a one time expense, and will not require future funding.

Note: The budget chart can be found in Appendix A, and includes a all expenses the project will encumber, with a 5% contingency fee applied to the total amount.

Fixed Cost Fund

The project requests funding to purchase 700 stickers from the “thesecomefromtrees” group. The cost of 700 stickers is \$98. An additional \$10 will be requested to cover any taxes

and shipping costs. During the planning phase of the project, Andrew Nettels was in communication with Peter Kazanjy. Mr. Kazanjy is an entrepreneur, author, consultant, and founder of the “thesecomefromtrees” group. When communicating with Andrew Nettels, Mr. Kazanjy generously offered to send enough stickers to facility services for posting in all 330 restrooms on-campus, free of charge to the University. Mr. Kazanjy’s generous contribution allows the project to have the possibility of achieving its objective of a zero cost campus implementation. The project still requests \$108 for its fixed cost fund. Upon the arrival of the stickers at facility services, Andrew Nettels will un-encumber the amount from the financial documents as Treasurer of the Green Fund.

Reserve Fund

In an effort to demonstrate a commitment to implementing the project at zero cost to the University, the reserve fund shall only be accessible upon a majority vote by the Green Fund Committee. This mechanism for approving the reserve fund is in compliance with *Section 3.4* of the Green Fund Bylaws. The purpose of the reserve fund is to serve as a safety net for the successful implementation of the project. The Green Fund Committee shall retain the authority to collectively define “successful student involvement”, and initiate voting to approve the reserve fund.

The project requests \$780 in funding for its reserve fund. It is difficult to forecast the amount of student volunteers the project will receive upon approval. The reserve fund shall guarantee the implementation of the stickers in a minimum of 30 on-campus buildings. Buildings contain “Male”, “Female”, and occasionally “Gender Neutral” restrooms. Therefore, each of these 30 buildings will require 2 students for implementation.

To receive wages from the Green Fund, students must be registered with University Human Resources, and on the Office of Sustainability payroll. In consideration of these accounting and logistical interests, the fund will exclusively provide wages to student workers on payroll within the Office of Sustainability. Should the reserve fund be enacted, a rate of \$13 per building will be provided to student workers, as the minimum wage for the Office of Sustainability is \$13 per hour. In the enactment of the reserve fund, all student workers within the office of sustainability would be eligible to participate in the project as a paid student worker, regardless of office position or involvement. The various components of the reserve fund are in compliance with both Green Fund Committee Bylaws and established University Funding Restrictions.

Project Implementation Plan & Timeline

This section of the *Paper Towel Mitigation Project* proposal provides a detailed implementation plan and project timeline. Considering the far-reaching scope of the project, it is essential to clearly define all steps and processes for the implementation and timeline of this project. Components of this section include: (1) Building Manager Implementation Plan, (2) Student Volunteer Implementation Plan, (3) Monitoring Project Impact after Completion, and (4) Project Timeline Overview. *Figure 3* provides an overview.

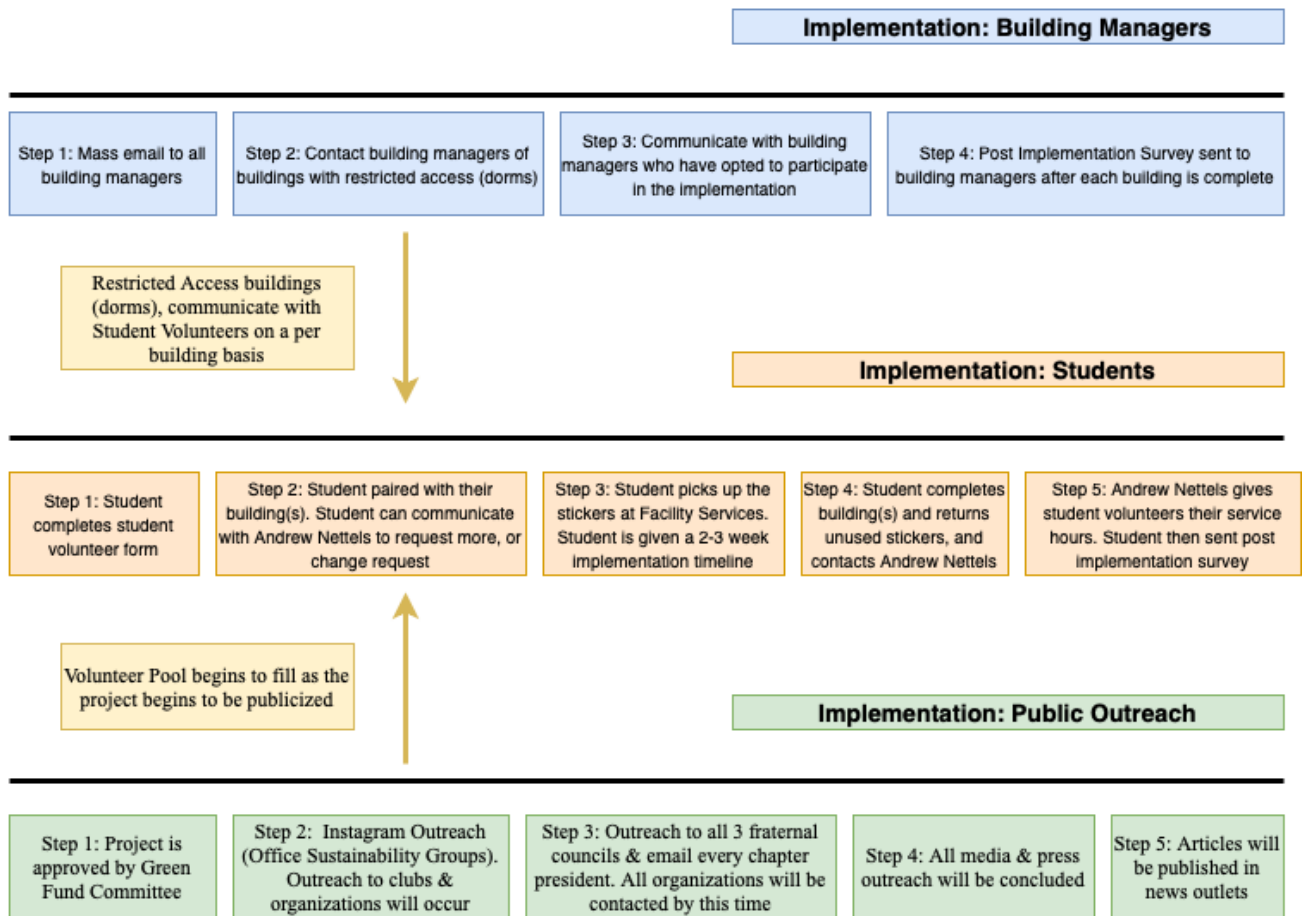


Figure 3

Building Manager Implementation Plan

It is important to note that the authorization of building managers for this project is not required, as University Marketing has approved the stickers for posting within all buildings on campus. Despite this, Andrew Nettels will send a mass email to every building manager on campus. In addition to providing information about the project, the email will contain the

Building Manager Implementation Document. This document will specifically contain: (1) The COVID-19 Safety Statement, (2) Request for Building Access (if necessary), (3) Project PR Package & Description, (4) Project Approval Documents, (5) The Multilingual Janitorial Form, and (6) Informational Requests.

(1) *The COVID-19 Safety Statement:* Notifies building managers that students will wear masks and practice social distancing when posting the stickers in their building.

(2) *Request for Building Access:* If buildings such as administrative offices, or Freshman Dormitories require NAU key-card access, access to the building during a specific date/time will be requested. The implementation of the project in these buildings is not guaranteed.

(3) *Project PR Package & Description:* Main points of the project will be included. A brief list of tangible and intangible benefits of the project will be provided in an attempt to increase the participation of building managers with the project. The building managers will be encouraged to contact Andrew Nettels with any questions or concerns they may have regarding the project.

(4) *Project Approval Documents:* The University Marketing and Facility Services approval documents will be included in the first communication with building managers. During the implementation process, student volunteers will bring physical copies of these documents, should a building manager request them.

(5) *Multilingual Janitorial Form:* A Multilingual form will be sent to building managers for distribution to janitorial staff members, and for posting within janitorial breakrooms. When collaborating with the University of Washington, it was discovered that their implementation was stalled by janitorial staff members mistaking the stickers for graffiti. To avoid this obstacle, the multilingual form informs janitorial staff members of the project's approval by the University.

(6) *Informational Requests:* Andrew Nettels will request that building managers send an estimated count of building restrooms, and if possible, number of paper towel dispensers. This will hopefully ensure that the correct amount of stickers are posted in each building.

Student Volunteer Implementation Plan

The provisions of the Student Volunteer Implementation plan are documented in this section. The size of the project requires the seamless coordination of many student volunteers. This section includes: (1) Student Volunteer Form & Intake Procedures, (2) COVID-19 Safety Agreement (3) Allocation of Project Materials, and (4) Service Hour Incentivization.

(1) *Student Volunteer Form & Intake Procedures*: A link to a Google Form will be included in the advertising and outreach of the project. Students seeking volunteer participation in the project will be prompted to complete the Google Form. In addition to providing necessary information, students will list their building preferences. Students may opt to take on 1 or more building(s) at a time. Andrew Nettels will pair students with their preferred buildings, and/or buildings within their desired campus location. Upon completion of the form, students will be contacted by Andrew Nettels with their assigned buildings. Depending on the size, location, and layout of buildings, students will be given 2-3 weeks for implementation.

(2) *COVID-19 Safety Agreement*: By volunteering for this project, students understand that they will be required to wear a mask and practice social distancing at all times. Students in violation of this outlined policy will not be eligible to receive community service hours.

(3) *Allocation of Project Materials*: Students will be prompted to pick up the stickers for their building(s) at Facility Services. Students will be provided an address and time to pick up the stickers. Andrew Nettels will place stickers in envelopes addressed to students within the lobby of Facility Services. Andrew Nettels will wear gloves and sanitize surfaces to maximize COVID-19 safety. Each envelope will contain: (1) A predetermined number of stickers to be determined by building size and layout, (2) Physical copies of both approval documents, and (3) the Multilingual Janitorial Form. Student volunteers will be asked to leave the Multilingual Janitorial form at the front desk of each building they post stickers in. Should student volunteers have any stickers left over after implementation, they will be asked to return them to facility services or post them in other buildings.

(4) *Service Hour Incentivization*: Students will be provided with 2 community service hours per building, regardless of building size, location, or layout. The 2 hours are designed to include: student transport/walking to and from Facility Services, time spent walking/driving to and from buildings, and time spent posting the stickers within various building(s). Students may receive a signature verifying their community service hours from Andrew Nettels, or Mr. Iacona upon completion. Additionally, Andrew Nettels will receive community service hours for his involvement in the coordination and implementation of the project, instead of encumbering funds for the time he will spend ensuring the success of the project.

Post Implementation: Monitoring Results

The effectiveness of the project's cost and outreach objectives will be monitored post implementation by utilizing (1) Post Implementation Surveys, and (2) University Purchasing Data.

(1) *Post Implementation Surveys*: Building managers and student volunteers will be sent post implementation surveys. Building managers will receive a survey once the stickers have been posted within the “Male”, “Female”, and “Gender Neutral” restrooms of their buildings. The surveys sent to building managers will measure: building managers’ optimism with the project, any usage changes in their building, and observations of the stickers’ effectiveness in their buildings. A similar survey will be sent to students once they post the stickers in all building(s) they signed up for. The student survey will measure: changes in their paper towel usage habits, would they recommend this project to a friend, their level of optimism in achieving change on campus, did they learn more about sustainability, and did participating in the project encourage them to become further involved with sustainability at Northern Arizona University.

(2) *University Purchasing Data*: Paper towel purchasing data will be obtained one semester after the project has been completed. The data will be compared with the cost benefit analysis of this proposal to measure effectiveness. The monitoring of campus purchasing data will continue for semesters to follow for the purpose of accurately measuring the long term impact of the project. This proposal document and future findings will be available to other institutions attempting to implement similar projects.

Appendix A: Project Timeline & Budget

Timeline: Paper Product Mitigation Project		
Action	Parties Involved	Month/Year
Order stickers from Mr. Kazanjy, to be shipped to Facility Services	Andrew Nettels, Mr. Kazanjy	March, 2021 (Immediately)
Begin counting stickers and placing them into envelopes for students.	Andrew Nettels	March, 2021 (Immediately)
Mass email to all building managers	Andrew Nettels	March, 2021 (Immediately)
Project gathers student volunteers. Student volunteers assigned buildings.	Andrew Nettels, Student Volunteers	March, 2021 (Immediately)
Further publicize the project. Finish working on stories in news outlets.	Andrew Nettels, press members	March, 2021 (Immediately)
Building Implementation: 8 week timeline. Goal: 50 buildings	Andrew Nettels, Student Volunteers	March, 2021 - April, 2021
Reach building implementation & outreach goal	Andrew Nettels, Student Volunteers	April, 2021
Monitor Project Results, and continue implementation (if needed)	Andrew Nettels, Student Volunteers	May, 2022

Budget: Paper Product Mitigation Project			
Item	Price	Quantity	Total
Stickers	\$98.00	700	\$98.00

Tax & Shipping	\$10.00	N/A	\$10.00
Reserve Fund	\$13.00	60	\$780.00
5% Contingency	\$44.40	N/A	\$44.40
Total Requested Funds, Fixed & Reserve Costs			\$932.40

Appendix B: Project Approval Documents, Facility Services



March 3, 2021

To: NAU Green Fund Committee
From: Andrew Iacona, Project Manager Sr at Facility Services

Dear Green Fund Committee,

I am submitting this letter of support on behalf of Facility Services to confirm my full commitment and support for the proposed *Paper Product Waste Mitigation Project* by Andrew Nettels, Treasurer of the Green Fund Committee. In collaborating with this proposed project, Facility Services has agreed to serve as the sponsoring department to the project.

This project proposes the campus-wide implementation of “These Come from Trees” stickers to mitigate the volume of paper towel consumption on the campus of Northern Arizona University. The project will specifically accomplish this through a public outreach campaign to amass a large group of student volunteers for its implementation. In addition to raising student participation and sustainability awareness on campus, the project has the potential to save the University thousands of dollars per year through reduced paper towel demand. Facility Services supports the campus involvement and zero cost objectives as outlined in the project’s proposal.

As Project Manager Sr at Facility Services and interim Business Manager to the Green Fund, I can confirm the department’s commitment to serve as the administrative unit for managing the Green Fund’s expenses associated with the *Paper Product Waste Mitigation Project*. Facility Services understands that only the requested fixed cost and reserve funds shall be expended by the Green Fund, should this project use its encumbered funds. Facility Services also understands that the Green Fund is only responsible for the initial purchase of the materials and/or salaries for implementation as noted in this proposal and will not fund continued maintenance of the program.

Sincerely,

A handwritten signature in black ink that reads 'Andrew Iacona'.

Andrew Iacona
Project Manager, Sr. *Facility Services*
Interim Business Manager *Green Fund, Office of Sustainability*
Andrew.Iacona@nau.edu | 928 523 3109



University Marketing

March 3, 2021

To: Andrew Nettels, Project Coordinator of the *Paper Product Waste Mitigation Project*
From: William Brandt, University Marketing Client Service Manager

Dear Andrew Nettels,

Thank you for submitting the "These come from trees" stickers for review by University Marketing. There is no reference to NAU or use of NAU graphic marks; therefore, no conflicts with NAU brand standards. We do not endorse marketing messages from outside sources, however, this initiative aligns with NAU's commitment to sustainable practices.

Based on the rationale above, we do not object to placing these stickers on paper towel dispensers on campus.

Sincerely,

William Brandt

William Brandt
University Marketing | Client Services Manager
william.brandt@nau.edu | 928 523 0663

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