

GREEN FUND ANNUAL REPORT

2020-2021



Office of Sustainability

OUR VISION STATEMENT

Implementing student-led projects and developing campus-wide partnerships to drive visionary, impactful, and sustainable initiatives and serve as a leading example in higher education.

OUR MISSION STATEMENT

The NAU Green Fund promotes student participation in and provides funding for projects that reduce NAU's impact on the environment and create a culture of sustainability on campus.

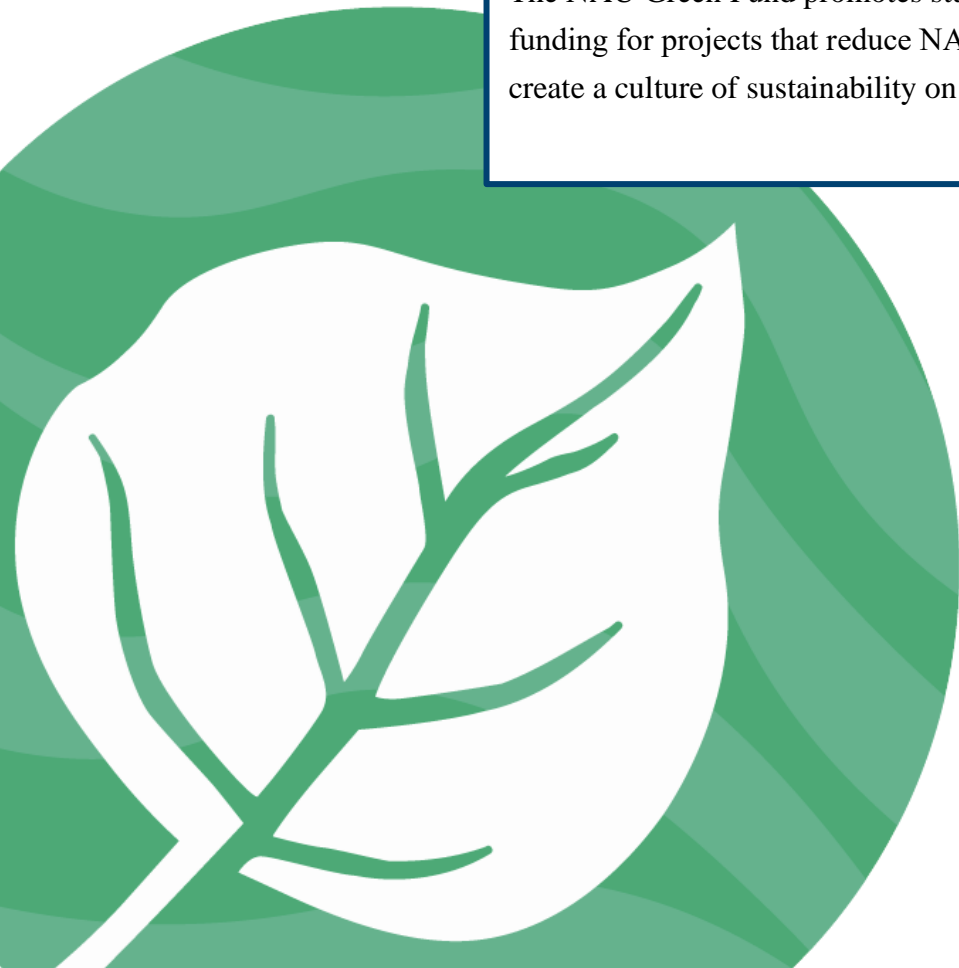


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Introduction

In March 2010, the Northern Arizona University (NAU) student body established the Green Fund. This fund began as a \$5.00 per student, per semester Green Fee, and in the spring of 2019, this fee was raised to \$15.00. The goal of the Green Fund is to promote student involved and funded sustainability projects on campus. These projects include reducing NAU's environmental impacts and improving the culture of sustainability on campus. The Green Fund is a student-led committee that helps to aid students with the proposal process as well as vote on submitted proposals, which can come from students, faculty, and staff. The Green Fund voting committee is made up of seven students, a graduate student representative, and 3 faculty/staff advisors, who vote to approve projects. All approved projects must align with one of the seven Climate Action Plan categories, which include: energy, water use, transportation, waste minimization, landscape management, resilience, and environmental justice. The committee has approved over 95 projects with a total of \$2,188,604.69 spent. The results from these projects include allowing students to use their fee money to make NAU's campus a better place for themselves and other students, increase awareness of sustainability on campus, and decrease NAU's environmental footprint.

This year the Green Fund faced a new challenge with the threat of COVID-19 and students attending mostly remote. This led to less opportunities for presenting to classes, hosting events, and outreach in general. There was a very small amount of proposals submitted from students and faculty, and most proposals came from Green Fund members or other Office of Sustainability members. Despite this challenge, the Green Fund still found ways of promotion through online platforms, hosted an event, and approved many proposals.

This report contains all projects approved during the 2021 Fiscal Year. This includes the Fall 2020 and Spring 2021 semesters. The total amount of these projects comes to \$553,077.10, including spent and encumbered finances.

San Francisco Solar Array

\$100,000.00

The San Francisco Solar Array is a project that the Green Fund is continuing to pay off in installments of \$100,000 per year. The total for the project is \$1,000,000, and includes solar panel installation on top of the San Francisco Parking Garage. This solar panel array is 561.6 kW and was installed in April of 2017. As of this fiscal year, the Green Fund has paid a total of \$700,000 toward this project.



Sustainable Revolving Fund

\$250,000.00

The goal of a creating a sustainable revolving fund for NAU is to provide funding to projects that implement energy efficiency, renewable energy, and other sustainability projects that generate cost savings. The cost savings generated from these projects is then revolved back into the fund to provide more funding for future projects. The Green Fund put \$250,000 into starting this fund, with agreement from the university to match this amount, for a total of \$500,000 beginning in the revolving fund. Creating this fund on campus will allow more efficient cost-saving technologies to be implemented while also reducing NAU’s environmental footprint. This revolving fund has the ability to fund a wide variety of sustainability projects and will continue to grow with every project done. To manage this fund in the future, a committee will be created to decide which projects will produce the most cost savings while also moving NAU to carbon neutrality.



Sustainable Period Products

\$40,705.31

The goal of this project is to provide sustainable period products to students who menstruate. The products purchased for this project include menstrual cups, reusable pads, and non-applicator organic tampons. Educators at Health Promotion developed a comprehensive sexual health program training as an incentive for this project. Students who completed this training had access to the survey where they could request the products they want and schedule a time to pick them up during the Spring 2021 semester. The goal is was to distribute these packages to approximately 500 students.



This project will help students reduce barriers in promoting their own sustainable behaviors, as it provides access to products that are typically expensive for college students. It



also has the possibility to make students more aware of the ways they can reduce their trash production and make menstruating more sustainable. This project aligns with the waste minimization and environmental justice categories of the NAU Climate Action Plan as it provides products that reduce waste production in an equitable and sustainable way.

Sustainable Health Care Packages

\$4,882.50

This project provides sustainable health care packages to NAU students in order to promote aspects of student well-being centered around sustainability. These packages include resources regarding plant-based living, a succulent from Warner's, the local plant nursery in Flagstaff, an O2Go container, and a \$20 dining dollars voucher. The Health and Habits team for the



Office of Sustainability put these packages together and distributed

them to students on campus in the Spring 2021 semester. This project aligns with the environmental justice category of NAU's Climate Action Plan and promotes accessibility and equity on campus.



Paper Product Waste Mitigation

\$0

This project's main goal is to reduce the consumption of paper towels on campus. The stickers seen in the image will be put on every paper towel in over 90 state-funded buildings on the NAU campus, spreading sustainability awareness. These stickers, that are manufactured by the group "these come from trees", can produce up to a 29% reduction in paper towel use based on a study done in 2009. Along with reducing NAU's waste, this project also promotes student involvement because of the volunteer opportunity created. Students who help put the stickers up across campus will receive volunteer hours for their service while also getting involved with sustainability initiatives. There are also cost savings associated with this project, which will be a result of the university having to buy fewer paper towel products due to the reduction of use by students and faculty.



This project has provided a huge marketing opportunity for the Green Fund. There have been news articles and radio interviews published about this project, which helps spread awareness of the Green Fund. The large student involvement in the project has brought up many questions from the student body and shows that students want to learn more about sustainability and what the Green Fund does for NAU.

Riles Water Bottle Refill Station

\$3,065.25

The need for a water bottle refill station in the second-floor lobby of the Riles building on campus was brought to the Green Fund's attention. The water fountain that is already present will have a water bottle refill station added to it. This will provide students and faculty in the building a way to fill reusable water bottles. This project will promote NAU's culture of sustainability and reduce the waste produced due to plastic water bottles.



Green Fund 5k

\$1,135.48

During the Spring 2021 semester the Green Fund hosted a virtual 5k during NAU's Earth week. The 5k went on for an entire week and participants tracked their route with an app created by the Green Fund Data Analyst. The money for this was used to purchase beanies that were embroidered with the Green Fund logo to give out to the first 50 people who completed the route. This helped to promote the Green Fund on campus and allow students and faculty to participate in events while still social distancing and following COVID-19 guidelines.

Geothermal Borehole Thermal Conductivity Test

\$71,895.00

This project involves drilling a borehole 500 feet into the ground to conduct a thermal conductivity test to determine the feasibility of implementing a geothermal heat pump system on campus. A geothermal heat pump system works underground by pumping water through tubes and creating energy transfer either into, or out of, the water depending on the outside temperature. In winter the ground temperature is warmer than the outside temperature and can be used for heating. In the summer, the ground temperature is cooler than the outside temperature and can be used for air conditioning. Geothermal heat pumps utilize a carbon-free and renewable source of energy, which would replace the current heating system at NAU that uses natural gas.

This is beneficial to NAU as a geothermal heat pump system is one of the two options proposed by the Climate Action Plan that is currently being analyzed. This test would determine if this is a feasible option to consider. The test will be conducted in the summer of 2021 and will be finished before the final draft of the CAP is published, to help aid in the decision for a new heat system.

Calsense Expansion

\$84,096.85

This project involves expanding the Calsense Water Monitoring system that is currently on NAU's campus to include the Eastburn Education building, as well as upgrading the systems at the Applied Research and Development building and the Recital Hall. There are currently Calsense Water Monitoring systems on approximately 30% of NAU's irrigation systems. This project would include upgrading the existing Calsense hub to a new CS3000 hub with stainless steel wall mount enclosure, along with wireless communication, and transient protection. The installation at Eastburn Education would replace existing irrigation boxes that are broken and will re-level boxes that aren't broken, as well as replace all rotors with Hunter I-20's. A new Calsense controller with a new master valve and flow sensor would also be installed.

This project aligns with the Water category of the Climate Action Plan as it conserves water usage by monitoring the flow of the sprinkler systems. A Calsense Water Monitoring system can save an institution about 20-40% of water usage annually and they have a lifespan of 10 years. In 2016, NAU used 190,142,191 gallons of water. By saving the minimum of 20% of the 2016 usage, the university would be saving over 35 million gallons of water annually. With the average cost of \$5.67 per 1,000 gallons of reclaimed water, NAU would save about \$21,500 annually.

Student Research Grants

\$9,020

To further support the Green Fund's Mission Statement and further improve the sustainability on campus, the Green Fund also accepts proposals for research grants. These grants are for research that is aimed at helping to understand and reduce NAU's environmental impact. The ultimate goal of this funding is to spark future Green Fund project proposals.

2020-2021 Student Research Grant Awards:

1. Sebastian Espinoza - \$1,550
Project: Calculating CO₂ Emissions from Commuting to Campus Pre and Post Covid19
2. Annie Bachmayer, Joshua Rihs, and Darren Bingham - \$4,400
Project: Creating a Roadmap to Zero Waste at NAU's Flagstaff Mountain Campus
3. Mikela Petersen - \$3,070
Project: NAU Campus Dining Energy Audit