

# GREEN FUND ANNUAL REPORT

2021-2022



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.



# Table of Contents

<b>INTRODUCTION .....</b>	<b>1</b>
<b>SAN FRANCISCO SOLAR ARRAY .....</b>	<b>3</b>
<b>NAU WASTE SENSORS.....</b>	<b>4</b>
<b>HOTEL &amp; RESTAURANT MANAGEMENT (HRM) COMPOST.....</b>	<b>5</b>
<b>SECRET GARDEN ATRIUM .....</b>	<b>6</b>
<b>NAU PINE PROJECT.....</b>	<b>7</b>
<b>WOMEN OF COLOR (WOC) HONORARIUM FUND .....</b>	<b>8</b>
<b>SKYDOME LIGHTING.....</b>	<b>9</b>
<b>SNAIL COMMUNITY GARDEN AND POLLINATOR RESTORATION CORRIDOR .....</b>	<b>10</b>
<b>GEOLOGY WATER BOTTLE REFILL STATIONS .....</b>	<b>11</b>
<b>SUBPOD COMPOST SYSTEM FOR SSLUG GARDEN.....</b>	<b>12</b>
<b>FOOD RECOVERY NETWORK MATERIALS.....</b>	<b>13</b>
<b>EARTH JAM.....</b>	<b>14</b>
<b>STUDENT RESEARCH GRANTS.....</b>	<b>15</b>

## **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-sourced sustainability project proposals and fund their implementation on campus. These projects include reducing NAU's environmental impacts and improving the established culture of sustainability on campus. The Green Fund is a student-led committee, composed of eight student members, 3 faculty/staff advisors and 1 business manager who aid students with the proposal process as well as voting to approve submitted projects. Proposals are sourced from NAU students, faculty and staff.

All approved projects must align with one of the seven Climate Action Plan categories, which include: energy, water, transportation, waste minimization, sustainable landscaping, environmental justice, and communication. The committee has approved over 105 projects with a total of \$2,529,033 funds allocated. The results and benefits of these projects greatly impact the campus community and student life, while simultaneously moving NAU in the direction of its ambitious sustainability goals. Providing students with the opportunity to utilize their fee money makes campus a better place for themselves, their peers, faculty, and staff and increases the visibility and awareness of sustainability on campus.

Over the past year the Green Fund faced a new challenge of bouncing back from a large slump in student participation due to the remote nature of the COVID-19 pandemic. This led to less opportunities for presenting to classes, hosting events, and outreach in general. In 2020 and the beginning of 2021, the Green Fund received smaller numbers of proposals and research grants 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 events, and approved many proposals.

Since then, the committee has bounced back extremely successfully. Engagement and public outreach have shown promising improvement, even though they are still lower than pre-

covid numbers. Even with a large committee turnover over the past year, the committee rose to the challenge in bringing visibility to the opportunities that the Green Fund can provide for students and NAU. Now that the campus community is progressing to a new normal, there exists many opportunities to keep up momentum and reach pre-pandemic engagement and proposal submission levels.

This report contains all projects approved during the 2022 Fiscal Year, which includes the Fall 2021 and Spring 2022 semesters. The total amount of these projects comes to \$340,428.60, including spent and encumbered finances.

See a full list of past projects on the Green Fund [website](#).

## 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 cost for the project is \$1,000,000, and includes the 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. It helps to power the San Francisco Parking Garage, as well as



some surrounding buildings. As of this fiscal year, the Green Fund has paid a total of \$800,000 toward this project. This project aligns with the Energy goals of the CAP by creating a source of renewable energy that is used to power parts of NAU.

## NAU Waste Sensors

**\$72,624.00**

The NAU Waste Sensors project involves installing waste sensors on the inside of all dumpsters on campus; this includes general waste, recycling, and the glass bin in the south commuter parking lot. This project aligns with the Waste Minimization section of the CAP by providing a method to quantify NAU's waste production. Each sensor will measure the level of waste within the bin, and send those measurements to an online platform that will be used to analyze the data. When the waste bins are full, a notification will be sent to the online platform so pickups can be adjusted accordingly. These sensors will optimize how often the waste is picked up to ensure waste bins are only being emptied when they are full. The waste sensors will also reduce litter and pollution on campus by sending alerts when waste bins are overflowing, providing insight for the most efficient pickup schedule for each bin. An additional benefit of this project is reduced costs associated with hauling waste on campus, saving the university thousands of dollars per fiscal year in waste management. This project is possible by creating a partnership with the City of Flagstaff, as the bins are owned and operated by the city.



Students can also get involved with this project by using the *Sensoneo Student App* that informs users of the nearest available empty bin. This app will be helpful in preventing waste overflow during move in and move out weeks in addition to serving as a reminder of the environmental impacts of excessive waste. Students can also provide real time feedback on waste levels to reduce overflowing and messy bins. The implementation of these waste sensors will contribute to the culture of sustainability at NAU and promote student involvement in waste minimization.

## **Hotel & Restaurant Management (HRM) Compost**

**\$474.95**

The HRM Compost project was established as the first student-led composting initiative at NAU. The compost bin is located at the School of Hotel & Restaurant Management's CULT Cafe and collects compostable waste from the Marriot Demonstration Kitchen, the Cult Artisan Beverage Learning Café, and other sources. The compost collected will be transported to the North Dining Hall where it will be picked up with other compost from the hotspot and taken to the composting plant on south campus. This project aligns with Waste Minimization goals of the CAP by reducing the amount of potential compost that goes to the landfill. This compost will eventually be used in the future HRM kitchen garden that will be built in Spring of 2022. This project contributes to the culture of sustainability at NAU by increasing student participation, teaching students about composting, and encouraging students to be involved with the Green Fund and waste minimization.

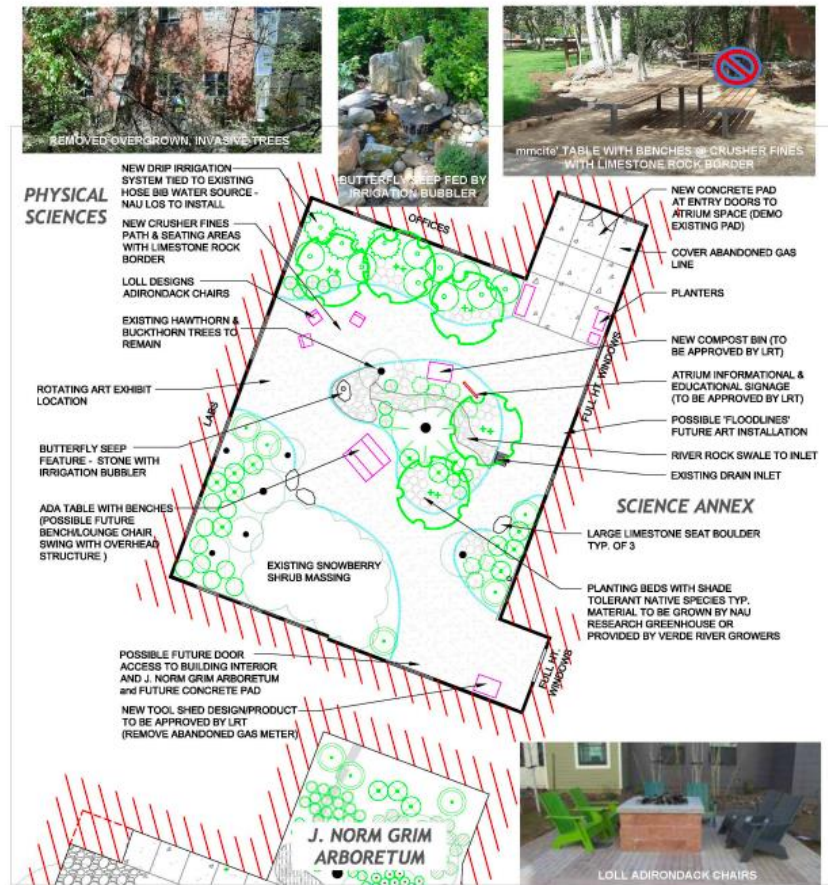


# Secret Garden Atrium

\$67,930.00

The Secret Garden Atrium project will convert an abandoned research aviary between buildings 19 and 20 into a common area for the campus community. This space is currently locked to the public, but will be reimagined to create a green space for students and faculty. This project aligns with the Sustainable Landscaping and Water goals of the CAP by removing invasive Siberian elm trees and replacing them with more drought tolerant and native species, and a rainwater collection system which will be installed to reduce runoff. It also aligns with the Waste Minimization and Communication goals of the CAP by providing a recycling and composting location for the proper reuse of organic and inorganic materials, and including informational signage about the restoration project and the associated benefits. This green space will be designed to alleviate stress and improve mental health, making this a sustainable project in many different ways.

The space will be maintained by students in ENV 181 and volunteers as they will be tasked with upkeep of plants, walkways, etc. There is also an established endowment of \$3,000 per year provided by Paul and Susan Begovac that will be used for periodic maintenance costs as well as for the purchasing of plant materials and supplies.



## **NAU Pine Project**

**\$17,099.22**

The NAU Pine Project will create eco-friendly outdoor furniture from pine needles and bio-based epoxy. Pine needles will be collected from the NAU recycle complex and shredded into varying sizes. The pine needles and epoxy will then be cast into a mold and made into sheets. The sheets will then be used to make different kinds of outdoor furniture including chairs and tables. The furniture made will be used inside the new Secret Garden Atrium, a project that was also passed by the Green Fund this year. This project aligns with the Waste Minimization goals of the CAP by creating usable furniture out of items that would otherwise be thrown away.



## **Women of Color (WOC) Honorarium Fund**

**\$3,175.00**

The WOC Honorarium Fund will create an NAU interdepartmental WOC seminar speaker fund. This fund will be used to bring two professionals who self-identify as WOC and who are experts in the field of sustainability, environmental science, ecology, conservation, or climate science. The speakers, Roxy Cruz and Lauren Pharr, will benefit the NAU community by sharing their expertise, exchanging perspectives, and networking as a leader in their field. This fund will enhance student knowledge about sustainability and environmental fields, while also widening student perspectives about WOC leaders.

Nearly half of NAU students identify as racial or ethnic minorities. By funding this seminar, the student body is benefited by witnessing representation in the scientific community and including diverse perspectives. This seminar will also make statements about diversity, equity, and inclusion issues while contributing to NAU's overall values. The WOC Honorarium Fund aligns with the Environmental Justice goals of the CAP by promoting the voices of people historically excluded from environmental science research. The seminar is scheduled to take place in October 2022.

## **Skydome Lighting**

**\$50,000.00**

The Skydome Lighting project is an addendum to the Sustainable Revolving Fund project that was approved by the Green Fund in the Fall of 2020. The original project cost the Green Fund \$250,000 for the creation of a revolving fund to be used for energy saving projects that generate cost savings. The cost savings from these projects will continually be reinvested into the revolving fund, growing it every year. The first project being completed with the Sustainable Revolving Fund is to change all lighting in the Skydome to energy efficient LED lighting. The Skydome Lighting project requested an additional \$50,000 due to inflation of materials since the original project was passed. This project aligns with Energy goals of the CAP by reducing the energy usage within the Skydome on campus.

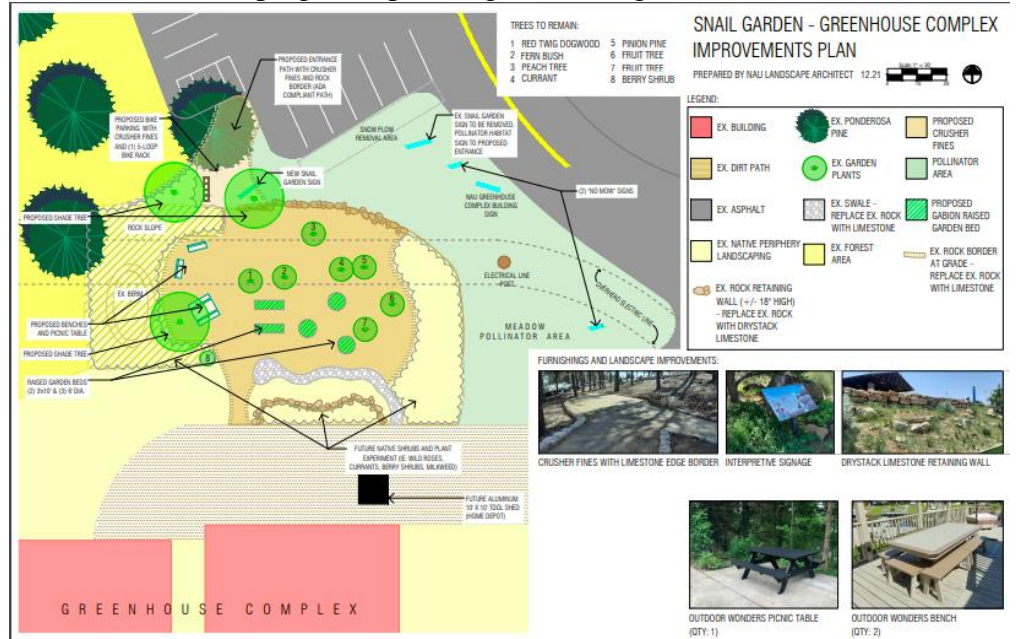


# SNAIL Community Garden and Pollinator Restoration Corridor

\$12,275.21

The SNAIL Garden is located on south campus next to Facility Services and was originally created in 2012, but has since fallen through the cracks due to lack of oversight and upkeep. The SNAIL Garden Renovation project will create a new mission for the SNAIL Garden that includes investing in sustainable gardening techniques, educating participants, expanding the concept of gardening into the realm of ecological cohesion, enjoying the health benefits of the garden, and providing a positive example of sustainability and environmental responsibility. The garden will be student and community run and will allow volunteers to gain hands-on education in gardening, landscaping, restoration, and native plants.

The goal of this project is to establish a team of gardeners, collaborators and volunteers to bring the new ideas to fruition. It also created a new garden design, a long-term management plan, and an annual budget for the garden. Some benefits of this project include carbon sequestration, establishment of a pollinator habitat, increased ecological diversity, and the use of minimal water and energy resources. This project aligns with all seven categories in the CAP by reducing energy and water usage, encouraging students to bike to the garden, composting all organic waste, increasing sustainable landscaping and spreading the message of sustainable land stewardship through education and group collaboration.



## Geology Water Bottle Refill Stations

**\$9,000.00**

Two water bottle refill stations will be installed inside the Geology building on campus. One water bottle refill station will be put on each floor in the south side of the building to replace very old pre-existing water fountains. There are currently no water bottle refill stations in the building, so these stations are expected to see substantial use by both students and faculty. This project will promote NAU's culture of sustainability and encourage the use of reusable water bottles. This project aligns with the Waste Minimization goals of the CAP by reducing the amount of single use plastic on campus.



## **Subpod Compost System for SSLUG Garden**

**\$1,059.00**

The Students for Sustainable Living and Urban Gardening (SSLUG) Garden is currently the largest and most active campus garden at NAU. The SSLUG Garden aims to be a space that engages students and educates them on important forms of climate action related to gardening. Campus gardens serve the important role of engaging students in local climate action where they can visibly see results from their actions. The SSLUG Garden focuses on growing food and medicine, composting, and seed saving. This project involves purchasing a Subpod Compost System that uses vermicompost (worm compost) for the SSLUG Garden.

This project will increase the garden's composting capacity and participation from students. The SSLUG Garden currently uses a hot composting system, which takes 6-9 months to fully break down organic matter. Vermicomposting can create usable compost within 2-3 months, which will greatly reduce the amount of time composting takes and increase their capacity for compost. Once the new composting system is implemented, the SSLUG Garden will host a workshop every semester to introduce students to the vermicompost system and educate them on why it is beneficial to the garden. There will also be a can next to the Subpod Compost System where students and faculty can throw their food/organic waste. There will be a QR code next to the bin for people to scan to document their compost drop-off, so the number of people using the compost can be recorded. This project aligns with the Waste Minimization and Sustainable Landscaping goals of the CAP by promoting composting on campus, and creating a sustainable source for gardening needs.

## **Food Recovery Network Materials**

**\$1,559.80**

The Food Recovery Network (FRN) is a volunteer-based program on campus that collects leftover food from the dining halls on campus. Their mission is to reduce food waste at NAU and divert it to community members experiencing food insecurity in Flagstaff. Currently, the FRN donates leftover food to Sunshine Rescue Mission and Flagstaff Family Food Center with the help of volunteers. The FRN Materials project provided the FRN with reusable, stainless-steel, zero waste alternatives to disposable aluminum trays that were originally being used to transport food. A stainless-steel cart was also purchased in order to make transporting trays from the dining hall to vehicles as easy as possible. Along with replacing disposable products, this project will help to sustain volunteer engagement by easing the volunteering process and making it more accessible. This project aligns with the Waste Minimization goals of the CAP by reducing single use trays and diverting food waste. It also aligns with the Environmental Justice goals of the CAP by providing food, that would otherwise be thrown away, to community members that need it.



## **Earth Jam**

**\$2,081.42**

Earth Jam is an annual event that is put on for celebration of Earth Day. With COVID-19 limiting in person events the past couple years, this was the first Earth Jam hosted since 2019. Earth Jam took place on April 22, 2022 and included tabling from clubs, free vegan and vegetarian food for students, yoga, and other sustainable activities. This event promotes a culture of sustainability at NAU while also bringing awareness to environmental issues, such as food production, the impact of animal-based products, and waste minimization. The food, provided by the WTF Truck, was served in compostable bowls, and volunteers ensured that the plates were properly being composted at the event. Food leftover after the event was donated to Sunshine Rescue Mission by Green Fund members. With the wide range of sustainability groups tabling during the event, all categories of the CAP were met and students were educated about them.

## **Student Research Grants**

**\$3,150.00**

To further support the Green Fund's mission statement and improve sustainability on campus, the Green Fund also accepts proposals for research grants on a semesterly basis. The application opens at the beginning each semester and closes toward the end to award recipients. These grants are for research that is aimed at helping to understand and reduce NAU's environmental impact and are open to both undergraduate and graduate level students. The ultimate goal of this funding is to spark ideas for future Green Fund project proposals.

2021-2022 Student Research Grant Awards:

1. Kelcie Kraft - \$3,150  
Project: NAU Refrigerant Audit