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SWARTHMORE COLLEGE

**PSRF  
ANNUAL  
REPORT**

2019-2020

PRESIDENT'S SUSTAINABILITY RESEARCH FELLOWSHIP

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# LETTER FROM THE PRESIDENT

Valerie Smith, *President*

Friends,

When I think of the President's Sustainability Research Fellowship, I see the liberal arts at work. Through this program, our students are learning project management, collaboration, and effective communication. They are also developing an openness of mind that will allow them to seek out and receive the unanticipated lessons that life has to teach. It reminds me that Swarthmore changes the world not only through the work that happens here on our campus, but also by preparing our students to create new and exciting forms of social change as alumni.

PSRF projects are truly a model for what it means to use rigorous intellectual study to develop solutions for some of the most complex and urgent challenges facing the world today. The projects you'll read about in this annual report are breaking down silos and catalyzing change across the College. These Fellows have provided us all with greater awareness that allows us to become stronger advocates for sustainability within our own communities. For that, I'm particularly grateful.

When our country's recognition of and response to climate change is in doubt, this work is a source of hope to me personally and to our entire campus. I am especially appreciative of Aurora Winslade, Kyle Richmond-Crosset, Brenna Leary, and others in the Office of Sustainability for stewarding this program. I am also deeply grateful to Carr Everbach, Professor of Engineering, who served as the faculty lead to the PSRF program last year. To all of the mentors and advisors who have given so generously of their time and expertise to the projects: thank you.

I look forward to the fifth year of the President's Sustainability Research Fellowship and meeting the new cohort of Fellows.

With gratitude,



Valerie Smith



# INTRODUCTION

Ben Berger, *Director for the Lang Center for Civic and Social Responsibility*  
Aurora Winslade, *Director of Sustainability*

How do students learn to lead? In the President's Sustainability Research Fellowship (PSRF) at Swarthmore College, they learn by leading: by taking stewardship over vital sustainability challenges. The program matches students with staff and faculty mentors to research, develop, and implement projects in a year-long course and associated internship.

The pioneering PSRF program—a collaboration between the President's Office, the Office of Sustainability, the Environmental Studies Program, and the Lang Center for Civic and Social Responsibility—fosters interdisciplinary collaboration throughout the institution. As students learn, lead, and innovate, they apply their knowledge to pressing needs and produce replicable solutions for our campus and beyond.

In the program's fourth year, Professor of Engineering and Environmental Studies chair Carr Everbach taught the year-long course along with Aurora Winslade, Director of Sustainability. Twelve students were selected and participated in the program as part of ten separate projects.

Throughout the year, students learned about change management, environmental justice, and the climate crisis, worked closely with project mentors and project boards to design and implement a truly impressive array of projects, and dealt with the disruption of COVID-19 in their academic and personal lives.

Final presentations were held virtually and were attended by nearly 300 students, staff, faculty, and alumni, which is a testament to how many people the PSRF program has impacted in just the past four years.

Next year, twelve PSRF fellows will take on eleven new and continuing sustainability projects in an unfamiliar academic environment. Despite these challenges, we fully expect Fellows to continue doing what they do best: research, collaborate, design, and lead, with the goal of making Swarthmore, and the world, a better place. For now, we invite you to read executive summaries from the 2019-2020 PSRF projects.

To the students, staff, faculty, alumni, and friends of the College who participated in the PSRF program this year:

# THANK YOU.





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# EXECUTIVE SUMMARIES

2019-2020





# REVITALIZING SUSTAINABLE OPPORTUNITIES



## MISSION

Improve internships in the Office of Sustainability, imagine new ways for students and student groups to get involved, and utilize our relationships with Chester and Hawai'i to create meaningful partnerships for education and community building.

## OBJECTIVES

In September 2019, President Valerie Smith signed the Global Climate Emergency Letter, which declared that Swarthmore will:

- Mobilize resources for action-oriented climate change research and skills creation; and
- Increase the delivery of environmental and sustainability education across curriculum, campus and community outreach programs.

The objectives of this project were to:

- Support the first commitment by assessing and recommending changes to improve the Green Advisors (GA) program, the Sustainability Advocates (SA) program, and the Swarthmore Ecosphere.
- Address the second commitment by working with community partners in Hawai'i to develop and implement an immersive learning experience in Hawai'i for students, staff, faculty, and community partners from Chester to learn about sustainability and traditional food practice.

## PROJECT TEAM

Oswaldo Morales Solorzano, PSRF Fellow  
Aurora Winslade, Office of Sustainability  
Melissa Tier, Office of Sustainability  
Kyle Richmond-Crosset, Lang Center for Civic and Social Responsibility  
Joy Charlton, Faculty, Sociology and Anthropology  
Patricia Martin, Off-Campus Study  
Tara Webb, Theatre  
Alliyah Lusuegro, GA Coordinator



## OUTCOMES

### Recommendations for campus engagement

- Make the GA program a more self-directed program for GA's to complete the work they view as most effective
- Provide SA's with more than one GA to assist them in their department projects, and to provide greater support and create stronger projects.
- Create an employment position for Student Waste Experts to help Green Advisors manage the campus-wide compost stream
- Create a Student Programming Intern to help oversee programs alongside the Sustainability Program Manager.
- Restructure the Swarthmore Ecosphere to create more avenues for students to do work and for student groups to create action



# REVITALIZING SUSTAINABLE OPPORTUNITIES

## OUTCOMES

### Hawai'i partnerships

- Hosted a delegation of community leaders from Hawai'i in December 2019
- Planned and implemented a huaka'i, or journey with purpose, to Hawai'i in March 2020. A cohort of 13 students, staff, faculty, and community partners from Chester traveled to Hawai'i, where they learned about sustainability through a new lens and built strong relationships with our partners.



## FUTURE WORK

The recommendations created during this project should be strongly considered by the Office of Sustainability in order to create better engagement with students across the College, and to make sure that our relationships with partners in Hawai'i and Chester are meaningful and impactful.

Students should be hired for the positions mentioned, and there should be continued work in imagining the academic value of an Environmental Studies course around Hawaiian studies paired with the huaka'i that was piloted this year.

Through this, there can continue to be efforts in mobilizing resources to create engagement and skills with sustainability, and expand sustainability education through our community and beyond, as we have committed to in the Global Climate Emergency Letter.





# CRUM WOODS ENGAGEMENT



## MISSION

Increase student, faculty, staff, and community member engagement and safety in Crum Woods, as well as continue to implement the 10-year Crum Woods Restoration and Stewardship Plan.

## OBJECTIVES

The Crum Woods is an amazing ecosystem to learn from and enjoy. Poor environmental practices have threatened its sanctity, and it is in need of restoration initiatives. When the woods are not being utilized and its ecosystems are threatened, change is necessary. The outcomes for this project were:

- Improve safety and engagement with the Crum Woods through the installation of trail markers, which provide hikers with directional guidance, positional information, and contact information for Public Safety.
- Facilitate the bidding process for a construction company to complete construction of the Lang Swale, to help manage stormwater runoff in the Crum Woods.
- Host the annual Restoration Planting Earth Week Event, a popular community engagement activity to assist with restoration planting in the Crum Woods.

## PROJECT TEAM

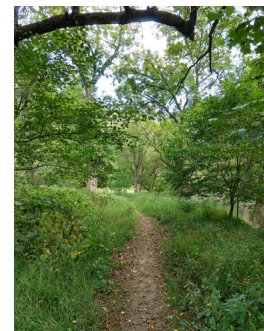
Momi Jesche, PSRF Fellow  
 Jeff Jabco, Grounds and Horticulture  
 Lars Rasmussen, Grounds and Horticulture  
 Sue MacQueen, Scott Arboretum  
 Jerry Schrack, Grounds and Horticulture  
 Kyle-Richmond-Crosset, Lang Center for Civic and Social Responsibility  
 Elizabeth Bolton, Faculty, English  
 Robert McKinstry, Sustainability Sage

## OUTCOMES

### Trail Markers and Maintenance

The installation of Trail Markers in the Crum Woods was planned and implemented, which included contracting and coordinating a signage company. A number of community outreach efforts were performed, aimed at publicizing the new Trail Markers and increasing engagement with the Crum Woods. This included brochures, newspaper articles, tabling, and communication with various stakeholders.

General trail maintenance to support the installation process, prevent erosion, and encourage greater use of the hiking trails was also performed throughout the year.





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# CRUM WOODS ENGAGEMENT

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## OUTCOMES

### Lang Swale Construction

Several construction companies, identified by Applied Ecological Services, a consulting company which helps maintain the Crum Woods, were identified and evaluated for the Lang Swale project.

As part of the beginning of the bidding process, an email of potential interest was sent to these companies to gauge interest. Formal correspondence was established with all but one of the companies, expressing interest in the project.

Due to Covid-19, the project was pushed back to the Summer of 2021. The handover of PSRF work within the project, to ensure the bidding process can continue as planned, is thus considered a final outcome of this process.

### Restoration Planting

The annual Restoration Planting event was planned. This involved planning the event in coordination with other Earth Week activities, ordering plants and organizing supplies, as well as designing a dialogue-based workshop on the importance of green spaces and indigenous conceptions of sustainability.

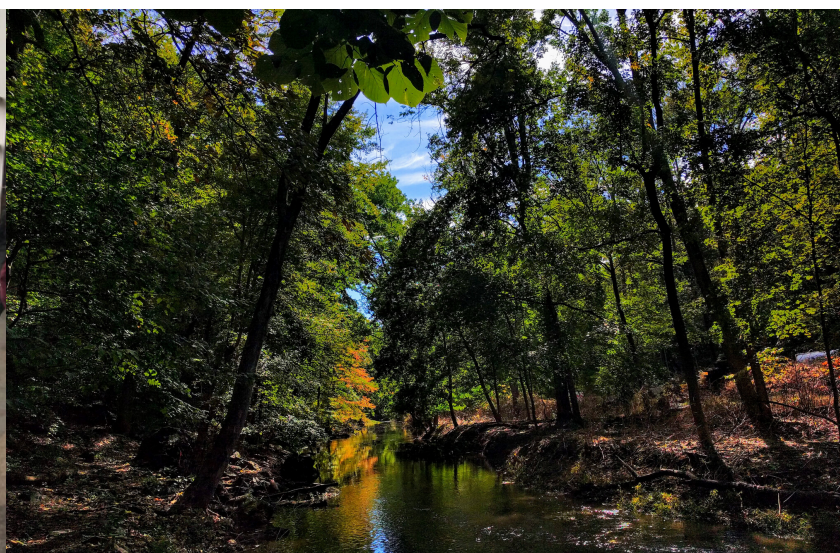
Due to Covid-19, the event was cancelled, and instead, a number of recommendations were made for future iterations of Restoration Plantings.

## RECOMMENDATIONS

The Crum Woods is an essential part of Swarthmore College whose restoration and preservation are critically important so that community members may continue to benefit from engaging with it.

To build off the progress of this PSRF project, continued support for the implementation of the Crum Woods Restoration and Stewardship Plan is recommended. The contracting and bidding process for the Lang Swale Construction was delayed to 2021, with only initial steps to reach out to companies having been completed. This process should continue when possible.

The College should host more student-friendly events in the Crum Woods, and create more opportunities for students to get involved with the Woods, Arboretum, and Grounds Crew.





# CLIMATE COMMUNITY



## MISSION

Build an engaged and purposeful climate community at Swarthmore College.

## KEY PRINCIPLES

The Climate Community PSRF project is dedicated to generating an engaged and purposeful climate community by breaking the mold of climate pedagogy, allowing participants to personally engage with the issue and question the collective assumptions that have brought humanity to the brink of catastrophe. In designing events and courses to achieve this goal, the project followed three key principles:

- **Community:** At the foundation of our work, we seek in all our programming to create the opportunity for lasting connections between participants.
- **Connection:** To foster engagement, it is essential that we work to connect these difficult global concepts to the personal experiences of community members.
- **Continuity:** To bring the work forward, we emphasize the importance of reflection and participant feedback as part of this iterative process.

## PROJECT TEAM

Declan Murphy, PSRF Fellow  
 Atticus Maloney, PSRF Fellow  
 Sacha Lin, PSRF Senior Fellow  
 Aurora Winslade, Office of Sustainability  
 Kyle Richmond-Crosset, Lang Center  
 Elizabeth Bolton, Faculty, English  
 Andy Hirsch, Communications  
 Alexandra Sastre, Communications  
 Pamela Boyce Simms, African Diaspora Coalition  
 Charles Bailey, Sustainability Sage  
 Jonathan Gilligan, Sustainability Sage

## OBJECTIVES

Using the three principles of community, connection, and continuity as a guiding framework for engaging the community in conversation about the climate crisis, the project's key objectives were to:

- Understand the community's conceptualization of and perspective on the climate crisis, and
- Identify expressed needs and interests within the community, and create programs to address them.





# CLIMATE COMMUNITY

## OUTCOMES

### Community perspectives

Understanding the community's perspective was accomplished in a number of ways:

- A survey directed towards understanding students' perspectives on the climate crisis was performed, which received over 100 responses.
- Individual meetings with faculty and staff were conducted.
- Multiple two-day intergenerational retreats, using the Council on the Uncertain Human Future model, were hosted
- A large-scale event was hosted to collect real time data on climate based conversations, in which over 60 attendees participated.

### Climate Essentials

Using this research, the "Climate Essentials" short course - a weekly, community-based learning and discussion space - was designed and implemented. The focus of the course was to bridge global and personal understandings of the climate crisis with the ultimate goal of fostering a shared sense of purpose in addressing the crisis.

The course had over 50 participants and met 5 times over the course of 2 months. It provided a spotlight for knowledgeable community members to share with others and gave participants opportunities for discussion and reflection on key issues.

100% of the participants demonstrated a connection between global and personal perspectives on climate change. In written feedback, participants overwhelmingly appreciated the community the course cultivated around the topic of the climate crisis.

## FUTURE WORK

This is only the first step toward the long-term goal of expanding Swarthmore's climate community so that all students graduate with a deep understanding of the climate crisis.

To meet the high level of demonstrated demand going forward, the Climate Community team will expand the Climate Essentials and Council offerings with the suggestion that the college hosts a campus-wide "Year on Climate" to further increase engagement.

Our programming over the past year has generated meaningful communities with a passion for change. To provide effective channels for this energy, we suggest that future Climate Community PSRFs cultivate relationships with local organizations to provide immediate actionable steps for inspired participants of Climate Essentials and the Council on the Uncertain Human Future.





# INFUSING SUSTAINABILITY INTO THE CURRICULUM



## MISSION

Envision the infusion of sustainability into all departments and programs within the Swarthmore College curriculum and begin to implement a plan to attain that vision.

## THE BIG PICTURE

Swarthmore College has a responsibility to its students to have a curriculum that contains both sustainability-focused and sustainability-inclusive courses, ensuring that all students graduate with a certain level of knowledge surrounding climate change and sustainability, and how these issues connect to all facets of life.

While this project focused on one curriculum at one institution of higher education, situating this project within the sphere of global climate change is imperative in order to understand the widespread importance of environmental education across all levels of learning, from childhood through adulthood.



## PROJECT TEAM

Rachel Vresilovic, PSRF Fellow  
Professor Carr Everbach, Engineering  
Aurora Winslade, Office of Sustainability  
Rachel Buurma, Faculty, English  
Jean-Vincent Blanchard, Provost's Office  
Sarah Jaquette Ray, Sustainability Sage

## OBJECTIVES

**Sustainability in the Curriculum Workshop**  
Host a “Sustainability in the Curriculum Workshop” for faculty members to integrate sustainability into their teaching. Through this workshop, professors could engage in sustainability and environmental problems and learn tools and skills to include these topics in their courses.

### ENVS Program Learning Outcomes

Create a survey to track courses in the Environmental Studies program and their engagement with the specific program learning outcomes. Use this survey to document the progress of ENVS students during their time at Swarthmore, and assess whether or not their course of study allowed them to engage with all of the desired learning outcomes.

### STARS: Academic Credits

Collaborate with Jasmine Xie’s PSRF project on sustainability metrics of the College in submitting the AASHE STARS report on academic credits. The collection of information includes details on institutional and departmental learning outcomes, as well as a summary of sustainability-focused and sustainability-inclusive courses.



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# SUSTAINABILITY IN THE CURRICULUM

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## OUTCOMES

### Sustainability in the Curriculum Workshop

The “Sustainability in the Curriculum Workshop” was hosted as a two-day workshop, in January, and was facilitated by Geoff Chase, a leading academic in the field of sustainability and higher education. Approximately twenty faculty and staff members attended the event, and engaged in discussing the definition of sustainability in higher education, workshopping potential new syllabi, and hearing from community members about their current sustainability and environmental work.

### ENVS Program Learning Outcomes

Hosted several focus groups and workshops to assess student engagement and perspectives on sustainability in the curriculum. To adjust for Covid-19, focus switched to creating the survey, which was done, but not distributed.

### STARS: Academic Credits

A number of stakeholders were engaged, and a significant body of research conducted, to collect and organize data to report. All STARS curriculum credits were submitted in March, in collaboration with Jasmine Xie '20.

## RECOMMENDATIONS

Here are a few key recommendations and next steps that are important for this project to move forward successfully into next year's PSRF project:

- Host another faculty curriculum workshop in the winter next year. Ensuring that this type of curriculum workshop becomes an annual event will help sustain faculty interest in continuing to develop and enhance courses to include sustainability topics.
- Host a few events that will help the College learn how students feel about their environmental and sustainability education while at Swarthmore. Over this past year I have had some amazing conversations with a number of faculty members about why they believe it is important to infuse sustainability into the curriculum, and I believe that this project would benefit from having more information about the students' viewpoints on the matter.





# FOOD & DINING



## MISSION

Increase community participation in solving food and waste related sustainability issues through Swarthmore's Dining Services, specifically by designing and piloting the 'Swat2Go' reusable food container program.



## OBJECTIVES

- Seek 50+ students to volunteer and participate in the Swat2Go pilot program
- Create operating procedures and training for the dishroom staff and the checker in the dining hall
- Wash and prepare a staging area for storing, distributing, washing, and drying all 200 containers
- Launch the pilot program and track its progress
- Distill recommendations and learning outcomes from the pilot to inform potential future development of a reusable food container program at Swarthmore

## PROJECT TEAM

Samantha Barnes, PSRF Fellow  
 Amanda Karpen, Dining Services  
 Linda McDougall, Dining Services  
 Jennifer Pfluger, Faculty, Environmental Studies  
 Carr Everbach, Faculty, Engineering  
 Anthony Coschignano, Auxiliary Services  
 Tim Galarneau, Faculty, UCSC

## OUTCOMES

### Recommendations for campus engagement

- Make the GA program a more self-directed program for GA's to complete the work they view as most effective
- Provide SA's with more than one GA to assist them in their department projects, and to provide greater support and create stronger projects.
- Create an employment position for Student Waste Experts to help Green Advisors manage the campus-wide compost stream
- Create a Student Programming Intern to help oversee programs alongside the Sustainability Program Manager.
- Restructure the Swarthmore Ecosphere to create more avenues for students to do work and for student groups to create action





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# FOOD & DINING

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## WHY REUSABLE CONTAINERS?

On average, 150-200 compostable containers are being used daily which costs about \$1,000 per week to supply.

According to the waste characterization study conducted by PSRFs Chantal Reyes '22, and Tyler White '22, these compostable containers alone represent about 2% of Swarthmore's on-campus waste stream.

## OUTCOMES

**Gathering Participants:** The program was successfully advertised to the student body; more students volunteered than could be accepted.

**Onecard Updates:** After the initial pool of 45 participants were registered, changes to their Onecards had to be made. The logistics and operations of these changes were coordinated with the Onecard Office.

**Launching 'Swat2Go':** Prior to launch, the 200 reusable food containers had to be cleaned and organized, and a dedicated cleaning and drying system was implemented. The pilot program was launched on February 11th, 2020, with a final participant pool of 64 students. The reusable containers, as well as their collection site, were staged alongside the compostable containers at the checker stands.

**Feedback and Recommendations:** Participants were asked for feedback at the conclusion of the pilot program, which was integrated into learning outcomes and recommendations for the deployment of a larger scale reusable food container program.

## RECOMMENDATIONS

The successful pilot of Swat2Go laid a strong foundation for the future expansion of the reusable container program.

**Program Expansion:** Due to a higher container turnover rate than expected, the same 200 containers could support upwards of one hundred participants. Participants requested multiple container collection sites across campus, which would require additional labour and machinery and is not feasible given our current dining facilities.

**Onecard system:** There were a few reports of technical difficulties with Onecards throughout the program, ranging from extra charges on the dining plan, to participants' Onecard authentication. These technical errors should be reviewed and solved with the Onecard Office, if possible.

**Data and metrics:** Planning for further expansion of the system should take into consideration the turnover rate, participant numbers, and similarly perform data tracking and analysis. Data can not only be used to inform operational improvements, but also to conduct comparative analysis with food waste and disposable containers to assess sustainability performance.

**A bright future:** Our new dining hall will be equipped to support a full Swat2Go program for each student on campus and completely phase out the use of compostable takeout containers. Additionally, the continuation and expansion of this project will allow the entire community to rethink what waste is and can be as well as how much of that can be changed. It's important that this message is not lost in the future of this project.

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# EQUITABLE ZERO WASTE



## MISSION

Integrate environmental justice into the Swarthmore community's existing environmental framework in hopes that the harms caused by waste could motivate our community away from a wasteful society and towards a lifestyle that enables people to thrive.

## OBJECTIVES

### Fall 2019 Waste Characterization Study

Coordinate the annual Fall 2019 Waste Characterization Study, which assesses waste stream composition and on campus sorting behavior by analyzing waste, recycling, compost from representative College buildings. Research past waste studies, plan and conduct a campus-wide waste characterization study, and make recommendations for future years.

### Environmental Justice Framework

Integrate an environmental justice framework for Zero Waste at Swarthmore. This framework further aligns the College to its commitments to social justice, and will motivate our community to reduce and divert waste through its waste sorting behavior. The objectives of this project were to conduct foundational research, and conceptualize such a framework.

## PROJECT TEAM

Chantal Reyes, PSRF Fellow

Tyler White, PSRF Fellow

Alex Danovitch, Waste Consultant

Chip Proctor, Environmental Services

Giovanna DiChiro, Faculty, Environmental Studies

Anthony Coschignano, Auxiliary Services

Kyle Powys Whyte, Faculty, Michigan State University

Aurora Winslade, Office of Sustainability

Melissa Tier, Office of Sustainability

Tyrone Dunston, Environmental Services

Carr Everbach, Faculty, Engineering



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# EQUITABLE ZERO WASTE

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## OUTCOMES

### Sustainability printing and purchasing

A series of recommendations on sustainable printing and purchasing practices were created and shared with the head of the College's Purchasing department.

### Fall 2019 Waste Characterization Study

The annual Fall Waste Characterization study for the 2019 - 2020 academic year was performed on October 11th.

Before the study, research and data analysis on previous Waste Characterization Studies were conducted, with the goal of creating a standardized set of protocols in the future. These protocols, which improve on previous iterations by further standardizing the sources and categorizations of waste data, were developed with the help of Alex Danovitch, a Zero Waste consultant.

After the study, data analysis was performed to distill the following learning outcomes, as well as generate a report which informs identified needs and recommendations for the Zero Waste Working Group:

- **Identification of specific and actionable contaminants:** paper, bottle and cans, food waste and food waste containers.
- **Conceptualizing the environmental justice framework:** The results of the waste characterization study indicated that waste sorting behavior, and especially the quality of the waste streams, had improved. However, common items were still being sorted incorrectly, highlighting a need for stronger motivation for community engagement.

### Environmental Justice Framework

Foundational research was conducted on the development of a more holistic metrics system for measuring all types of waste on campus, such as quantifying waste externalizations from electricity. However, the research was challenging to perform, due to the lack of transparency in broader waste systems, largely due to Pennsylvania laws and policies. Due to the disruptions of covid-19, integration of an environmental justice framework on campus could not be completed. However, we were able to meet with Mike Ewall, the founder of the Energy Justice Network, and the Environmental Advisory Councils, to continue to develop our off-campus network and connections with Delaware County, to try and create a broader outreach with our environmental justice framework.

## FUTURE WORK

Unfortunately, due to the disruption caused by Covid-19, much of the planning work for campus outreach during Earth Week could not be realized, including the development of relationships and collaborative opportunities in Chester. Instead, effort was dedicated to preserve the learning outcomes and make recommendations for future work, and maintain relationships with These were summarized in a Handover Plan document, which was submitted to the Zero Waste Working Group.

In order for the College to reach its Zero Waste goals, institutional policies and structures will be needed to reinforce current educational efforts. In addition, increased integration of environmental justice in the College's assessments of Zero Waste, and to further motivate community engagement.

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# TRANSPORTATION



## MISSION

Reduce Swarthmore's transportation-related carbon footprint so that the College can achieve its 2035 carbon neutrality goal. Specifically, design and contract for a centralized, efficient vehicle fleet and explore other ways to reduce transportation emissions.

## OBJECTIVES

The current fleet of vehicles, which range in age from 10-20 years old, is an area in which the College can work to substantially reduce our carbon footprint. This project board decided that replacing the current fleet with an updated, leased fleet could reduce emissions while ensuring safety, efficiency, and maximizing use. The project identified four main objectives:

- Establishing and launching a pilot program that centralized the vehicle fleet
- Calculating the carbon footprint of the current and centralized fleet
- Revising the current transportation policy
- Initiating research on student transportation usage



## PROJECT TEAM

Seneca Kinn-Gurzo, PSRF Fellow  
 Anthony Coschignano, Auxiliary Services  
 Brenna Leary, Lang Center for Civic and Social Responsibility  
 Alice Turbiville, Finance & Treasurer's Office  
 Rachel Head, Office of Student Engagement  
 Greg Brown, Finance and Administration  
 Chris Kane, Business Office  
 David Eldridge, Advancement



## OUTCOMES

### Establishing and launching a pilot program that centralized the vehicle fleet

We have identified the current fleet of vehicles, which range in age from 10-20 years old, as an area in which we can work to reduce our carbon footprint. My board members and I decided that replacing the current fleet with an updated, leased fleet could reduce emissions while ensuring safety, efficiency, and maximizing use. After drafting and releasing an RFP to fleet management and acquisition specialists, choosing among the respondents, and settling on a fleet of vehicles, the pilot program has been largely outlined and explained to participants. Upon the return of students, faculty, and staff to campus, the pilot program will be launched.

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# TRANSPORTATION

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## Calculating the carbon footprint of the current and centralized fleet

Using data from the vehicles currently operated by the groups that will be involved in the pilot program and the vehicles that will be incorporated into the centralized fleet, the differential carbon footprint has been calculated. An arbitrary distance of 1000 miles per vehicle was selected to make direct comparisons between the current fleet (vehicles operated by pilot program groups) and the new centralized fleet. The calculations indicate that the centralized fleet will emit about 25% less carbon dioxide and CO<sub>2</sub> equivalents than the current fleet.

## Revising the current transportation policy

Informed by best practices from several colleges and universities including Haverford, Carleton, Bucknell, Amherst, and Williams, the transportation policy has been revised. The document itself requires additional inputs from certain administrative groups. This policy will inform all campus transportation usage.

## Research on student transportation use

Unfortunately, the COVID-19 outbreak prevented the dispersal of the student survey designed to better understand public transportation usage. However, results of meetings with the Office of Student Engagement, the OneCard Office, and Student Government Organization have been compiled into a Memo document that proposes next steps. Though this project will not be passed on to another PSRF in the fall, there are still many steps necessary to continue this work.

## FUTURE WORK

The centralized fleet has been projected to emit 25% less carbon dioxide than the current fleet of vehicles operated by pilot program participants. The roll out of the pilot program as well as campus transportation more generally will be informed by the reformed transportation policy which needs to be finalized. Much more research needs to be conducted on student transportation usage. An understanding of student public transportation usage could allow campus groups to incentivize students to use public transport over Uber/Lyft/personal vehicles. Each of these components will push the College to reduce its carbon footprint, a task well within its reach.





# SUSTAINABILITY TRACKING, ASSESSMENT, AND RATING SYSTEM



## MISSION

Capture Swarthmore College's sustainability performance through the 2020 STARS report and make recommendations for the College in a variety of areas.

## PROJECT TEAM

Jasmine Xie, PSRF Fellow  
Carr Everbach, Faculty, Engineering  
Brenna Leary, Lang Center for Civic and Social Responsibility  
Jason Martin, Institutional Research  
Andy Feick, Facilities & Capital Projects  
Pattie Kim-Keefer, Career Services  
Sibelan Forrester, Faculty, Russian  
Heather Hassel-Finnegan, Sustainability Sage

## WHAT IS STARS?

STARS, or the Sustainability Tracking Assessment and Rating System, is a program developed by the Association for the Advancement of Sustainability in Higher Education (AASHE), the leading membership-based organization for sustainability at colleges and universities. STARS, which is the most widely-used and holistic rating system for sustainability in higher education, was first completed by Swarthmore in 2011.

The STARS tool is designed to engage institutions at all levels of sustainability, with open-ended fields for innovation summaries as well as helpful feedback from the post-submission review stage. Graded out of 100 total possible points, each institution's report is submitted for a rating of Platinum, Gold, Silver, Bronze, or Reporter, which provides a benchmark for how the school performs relative to other institutions.

## 2017 REPORT

After two submissions to STARS as a Reporter, Swarthmore College elected to receive a rating for the first time in 2017. The College received a Silver rating under the reporting efforts of Patrick Houston ('17) and Bridget Scott ('18), the inaugural PSRFs to take the lead on STARS. In addition to the submission, Patrick and Bridget made institutional recommendations based on two criteria: changes that that would put us on a pathway to a Gold rating by 2020 and those where "Swarthmore has resources, will, and need for improvement" (PSRF Planning & Assessment Team Key Findings, May 2017).



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# STARS

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## OUTCOMES

With the support of the project board and countless others, my main achievement for this year's project was completing the 2020 report and an assessment of how our performance aligned with the 2017 recommendations. A provisional review of our 2020 reporting by AASHE showed the College retaining the Silver rating.

During the reporting process, it became clear any momentum or progress on the 2017 recommendations was lost to the three-year gap between the submissions. In other words, progress made in the 2020 STARS report was mostly serendipitous, rather than empirically-informed, and the College did not make a concerted effort to implement the changes recommended in the 2017 report.



## RECOMMENDATIONS

While the recommendations in the body of my final report will help the College achieve a higher rating in the next STARS report, they will also advance the College's sustainability efforts, which should be the primary motivation for their completion. Some highlights of these recommendations are as follows:

### Academics

- Have more departments formulate and adopt sustainability-related learning outcomes
- Integrate a Sustainability Literacy test

### Engagement

- Measure and record the scope of Sustainable Advocates programming

### Operations

- Transition to waste reduction initiatives
- Track dining services purchasing data using methodologies informed by those adopted by our peer institutions
- Use GBC-approved building standards

### Planning & Administration

- Reactivate the Committee on Investor Responsibility
- Consider the investment policies of our peer institutions, found in their publicly shared STARS reports
- Renew our decade-old commitments to be more measurable

One of my central recommendations is to increase continuity through at least one intermediate PSRF between this year and our next reporting year (2022-2023). This request was considered and will be implemented by the PSRF team. Maintaining institutional memory is critical for longitudinal assessments like this and the best way to act on the feedback that we receive.

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# ATHLETICS



## PURPOSE

Continue the implementation of the Swarthmore Athletics 3-Year Sustainability Plan and build on initiatives implemented by previous PSRF Fellows, such as the Athletic Team Waste Trainings.

## OUTCOMES

Over the 2019-2020 Academic Year, the Athletics PSRF team was able to:

- Collaborate with the Green Advisor in Athletics, Chris Matthews, to run Waste Trainings and Characterization Studies with athletic teams;
- Reaffirm participation in the Green Sports Alliance;
- Assist the implementation of Garnet Go Green's "Gold Standard" ranking system. This system collected information about each team's participation in Zero Waste initiatives; and
- Use a simple mechanism to assess the carbon generated by Swarthmore Athletics travel. These estimates, and recommendations for purchasing offsets, will be part of the work examined by the 2020-2021 Carbon Offsets PSRF student.



## PROJECT TEAM

Alexander White, PSRF Fellow  
 Eric Wagner, Faculty, Men's Soccer  
 Adam Hertz, Athletics  
 Brenna Leary, Lang Center for Civic and Social Responsibility  
 Tobin Adams, Athletics



## FUTURE WORK

To continue to capitalize on the momentum of previous PSRF Fellows, the remaining recommendations of the Sustainability Plan should be implemented. This work will be managed by an incoming Green Advisor in Athletics, and assisted by the GA's staff Sustainability Advocate.

Athletics should also continue to take advantage of the training and resources provided by the Green Sports Alliance, as this group collects and shares best practices across athletic institutions.

Unfortunately, plans to host a tree planting event in collaboration with the Crum Woods PSRF Fellow were cancelled due to COVID-19, but there was significant interest in the athletic community in participating in the planting. The carbon tracking and offset work will also continue, though it will be managed by the Carbon Charge PSRF.

# CHESTER SEMESTER



## PURPOSE

Bring together on and off-campus stakeholders to expand definitions of sustainability to encompass partnerships with organizations and people in surrounding communities. In particular, support the development of the ChesterSemester program.

## ABOUT CHESTERSEMESTER

The ChesterSemester program aims to expand the College's educational mission to "help its students realize their full intellectual and personal potential combined with a deep sense of ethical and social concern" through long-term partnerships with the College's neighbors in Chester. In addition, ChesterSemester also aims to build local resilience to the climate crisis. ChesterSemester is entering its fourth year. As of Spring 2020, there have been eight ChesterSemester fellows who have completed 11 semesters of work.

ChesterSemester has two core community partners, Pamela Boyce-Simms at QEW African Diaspora Earthcare Coalition and Rev. Zuline Wilkinson at Chester Eastside, Inc. In past years, the program has also been affiliated with Crozer Medical Center.



## PROJECT TEAM

Lucy Fetterman, PSRF Fellow  
 Mark Wallace, Faculty, Religion  
 Aurora Winslade, Office of Sustainability  
 Ben Berger, Lang Center  
 Ashley Henry, Lang Center  
 Brenna Leary, Lang Center  
 Pamela Boyce-Simms, African Diaspora Coalition  
 Mary Payne, Sustainability Sage



## PROJECT WORK

### Stage I: Clarify the intersections among QEW ADC, ChesterSemester, and PSRF

The first stage of this project aimed to clarify, through participant observation and discussions with stakeholders, the intersections and divergences between QEW ADC, ChesterSemester, PSRF, and the Lang Center. The project board, which consisted of individuals from each of these entities, explored what it looks like to open space for shared collaboration by decentering Swarthmore's hegemony and ensuring that everyone's voice was integrated into recommendations. This stage guided the design and implementation of the following two stages.



## CHESTER SEMESTER

### Stage 2: Document the intersections and identify preliminary recommendations

In this stage, the project board discussed ideas and recommendations, refined roles and responsibilities to support existing intersections between and among stakeholders, and defined next steps. The role of the Project Manager during this stage was to collate observations, discussions, and agreements into six memos that include recommendations. The memo topics focused on were as follows:

- Envisioning ChesterSemester
- Application process
- Internal Adjustments
- Reflection Sessions
- Overlap of ChesterSemester and PSRF
- Overlap of ChesterSemester and Lang Center

### Stage 3: Pilot implementation

In this final stage of the project, two major deliverables were completed:

- A process to support current ChesterSemester fellows to create the first ChesterSemester final whitepaper. The purpose of the whitepaper is to create a paper trail of the work that ChesterSemester fellows have done at their partner sites, and to integrate that work with personal reflection and frameworks that have been provided through reflection sessions.
- A framework to formalize ChesterSemester application process facilitated by the Lang Center

### NEXT STEPS

Over the course of the next few months, the first iteration of the application process will be implemented. The Fall 2020 ChesterSemester PSRF, along with the ChesterSemester Program Coordinator, housed in the Office of Sustainability, will work to refine and implement recommendations, with the current ChesterSemester PSRF entering a Senior ChesterSemester PSRF role.

