

President's Sustainability
Research Fellowship

Annual
Report
2021-2022



President's Office
Environmental Studies



Office of Sustainability
Lang Center for Civic
and Social Responsibility

Letter from the President



Friends,

When I think of the President's Sustainability Research Fellowship, I see the liberal arts at work. Through this program, students learn project management, collaboration, and effective communication. They also develop an openness of mind that will allow them to seek out and receive the unanticipated lessons that life has to teach. This program 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 model 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 break down silos and catalyze 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.

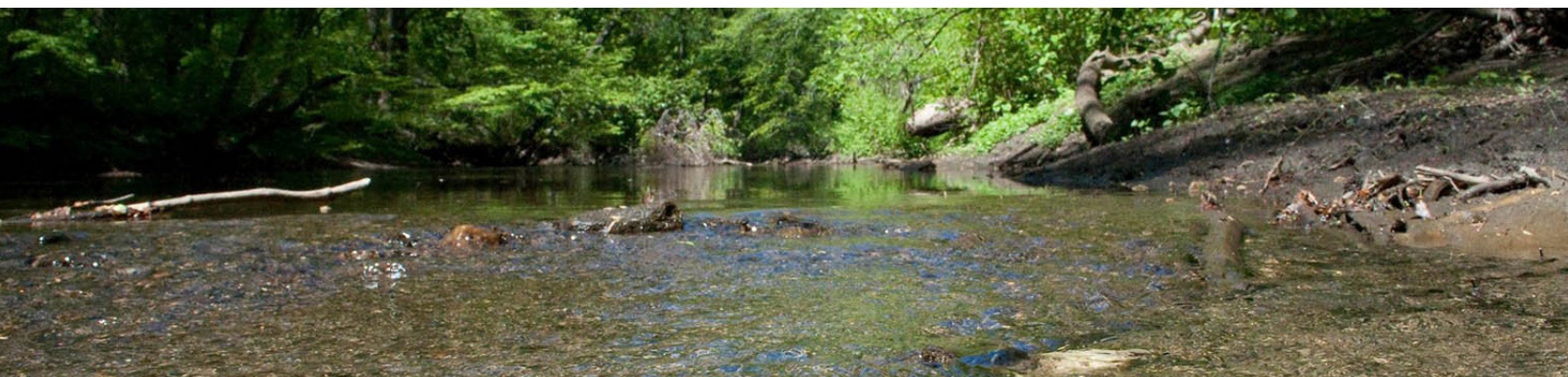
When our country's recognition of and response to the climate crisis is in doubt, this work is a source of hope to me personally and to our entire campus. Special thanks to Carr Everbach, Isaiah V. Williamson Chair of Civil and Mechanical Engineering and Environmental Studies, who served as the faculty lead for the PSRF program last year. I am also deeply grateful to Elizabeth Drake, Clare Hyre, Oswaldo Morales Solorzano '21, and Alex Flowers '21 in the Office of Sustainability for stewarding this program. And thank you to all of the mentors and advisors who have given so generously of their time and expertise to the projects.

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

With gratitude,

A handwritten signature in black ink that reads "Valerie Smith".

Valerie Smith



What Is PSRF?

In the President's Sustainability Research Fellowship at Swarthmore College, students learn by leading: by taking stewardship over vital sustainability challenges. The program matches students with staff and faculty mentors to research, develop, and implement sustainability projects in a year-long course and associated internship. The innovative PSRF program — a collaboration of the President's Office, the Office of Sustainability, the Environmental Studies Program, and the Lang Center for Civic & Social Responsibility — fosters interdisciplinary collaboration across the institution. Throughout the year, Fellows apply their knowledge to pressing needs and produce replicable solutions for our campus and beyond.

Year in Review

In the program's sixth year, Professor of Engineering and Chair of Environmental Studies Carr Everbach taught the year-long course alongside Elizabeth Drake, Director of Sustainability. Nine students were selected and participated in the program, taking part of eight separate projects.

After a year and a half of remote learning and work, the program returned to an in-person course and internship. The Fellows learned about topics like change management, environmental justice, and the climate crisis from the course instructors, a wide array of guest speakers, and from each other. In the internship, the Fellows worked closely with their project mentors and boards to design and implement a truly impressive array of projects. Final presentations took place in May 2022 as a hybrid event, allowing both on- and off-campus partners to attend.

Through their work, the Fellows have helped the College make exciting progress on its sustainability goals in areas including food systems, zero waste, and curriculum. This year, Fellows brought together hundreds of community members in conversation around the climate crisis, updated the College's building design standards to reduce the use of harmful materials, advanced restoration of Crum Woods, and so much more. We invite you to read on for the project summaries of the 2021-2022 PSRF cohort.



PSRF Teaching Team 2021-2022



Elizabeth Drake
*Director, Office of
Sustainability*
PSRF Co-instructor



Carr Everbach
*Chair of Environmental
Studies, Faculty, Engineering
& Environmental Studies*
PSRF Co-instructor



Oswaldo Morales
Solorzano '21
*Sustainability & Engaged
Scholarship Fellow*
Teaching Assistant



Alexander Flowers '21
*Sustainability & Engaged
Scholarship Fellow*
Teaching Assistant

Acknowledgements



Class of 1968 Fellow
Aaron Urquidez '22

Thank you to the Class of 1968, which endowed the Class of 1968 President's Sustainability Research Fellowship as part of its 50th reunion gift. The fund is intended to provide support for at least one Fellow annually.



Susan Lamb '82 and Rick Seavey Fellow
Juliana Lin '22

Thanks also to Susan Lamb '82 and Rick Seavey who in 2017 established the Susan Lamb '82 and Rick Seavey President's Sustainability Research Fellowship. The fund is intended to provide support for at least one Fellow annually.

And to all the alumni and friends of the College who support PSRF and to the students, staff, and faculty who participated in the program this year ...

Thank you!

Project Summaries

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The 2021-22 PSRF cohort, left to right: Jorge, Alana, Aaron, Alice, Sophia, Olivia, Huiying, Juliana, and Daria



Crum Woods Stewardship

Daria Syskine '22 (they/them)

Mission

To ensure that Crum Woods remain healthy and resilient for future generations of the local community, both by supporting continued restoration efforts and by cultivating reciprocal relationships between Crum Woods and students and faculty who can experience the Woods as a site of place-based education.

Background & Objectives

Crum Woods are an invaluable asset to Swarthmore College for their proximity and size, high biodiversity, and many community uses. This project supports Swarthmore's goals to protect, restore, and steward the Crum through the work of the Crum Woods Stewardship Committee.

One of the Committee's long-standing priorities has been to restore erosion and improve stormwater management in a swale channel located behind the Lang Music building in the northeastern portion of the woods. Momi Jesche '23, a 2019-20 PSRF, helped initiate the contracting process to address this, but the project was delayed due to the COVID-19 pandemic. Daria's project aimed to help complete the contracting process and begin restoration work on the runoff area.

The project also sought to support education in Crum Woods by investigating opportunities and challenges for incorporating the Crum into academic courses, then developing

Crum Woods teaching plans for faculty to use.



Daria participates in an Ecology class planting. They audited the course and developed and tested class lesson plans that aimed for deeper student engagement in the Crum.



Project Team

Mentors

- **Jeff Jabco** Director, Grounds and Horticulture
- **Lars Rasmussen** Garden Supervisor/ Plant Health, Grounds and Horticulture

Project Board

- **Alexander Flowers '21** Sustainability & Engaged Scholarship Fellow, Office of Sustainability
- **Jake Grossman** Faculty, Biology
- **Sue MacQueen** Campus Engagement Coordinator, Scott Arboretum

Sustainability Sage: Brian Ratcliffe '11

Outcomes

Advanced Crum Woods restoration efforts

Daria supported the bidding and contracting for the Upper Crum Swale that was completed Fall 2021, with construction beginning in June 2022. They also conducted a Spring Planting event attended by more than 40 students and other volunteers, attended four volunteer work days, and supported an Ecology class restoration planting.

Facilitated Crum Woods curricular engagement

Daria conducted interviews with 10 Swarthmore faculty and four external experts to understand challenges and successes in using Crum Woods, then consulted with Crum Woods Stewardship Committee to develop recommendations for increasing faculty engagement in the Woods. Daria also created four lesson plans and test-ran three of them to facilitate a more holistic and thoughtful approach to student-engagement in Crum Woods.



Students participating in March 2022 Spring Planting

Future Work & Recommendations

In the future, Daria recommends that Swarthmore increase use of Crum Woods in classes at Swarthmore by:

- Developing Crum Woods page on the Swarthmore website to serve as an up-to-date repository of information about the Woods for faculty and the campus community.
- Adding resources on the website for developing class modules.
- Making a Crum Woods tour a permanent addition to faculty orientation.
- Running a collaborative faculty workshop to develop additional modules for integrating Crum Woods into curricula.

In the longer term, additional steps could include:

- Create a permanent student or staff position to focus on curricular engagement in Crum Woods.
- Research the Indigenous history of Crum Woods and Swarthmore in collaboration with Lenape nations.
- Work with a faculty member to develop a first-year seminar based in Crum Woods.
- Improve accessibility of Crum Woods.

This work will continue with an emphasis on engagement with the surrounding community in the 2022-23 Crum Woods PSRF project.



Sticker made for March 2022 Spring Planting.

Sustainable Food Systems

Sophia Schlenz '23 (she/her)

Mission

The goal of this project is to support a vibrant, sustainable, and equitable campus food system that will engage students and community members in regenerative food production and increase opportunities for learning about food justice, food production, and sustainability.

Background & Objectives

The way that food is grown, sourced, and eaten at Swarthmore plays a major role in the well-being and sustainability of the College community. In 2021, the Food Systems Working Group was formed to improve the College's food systems with a focus on sustainability, nutrition, environmental justice, and responsible purchasing practices.

To improve and expand opportunities for students to engage in regenerative food production, this project had the following objectives:

- Develop a shared vision among campus stakeholders for increasing engagement with sustainable food systems in and out of the curriculum.
- Create a long-term plan for food production at Swarthmore.
- Increase avenues for student engagement with topics related to sustainability and food by hosting and envisioning on-campus events in partnership with the Office of Sustainability, the Scott Arboretum, and the Environmental Studies program.



Project Team

Mentors

- **Clare Hyre** Associate Director, Office of Sustainability
- **Sue MacQueen** Campus Engagement Coordinator, Scott Arboretum

Project Board, Food System Working Group

- **Timothy Smith** Retail Manager, Dining Services
- **Tiffany Thompson** Interim Dean of Inclusive Excellence, Women's Resource Center
- **Francesca Cameron** Fellow, Women's Resource Center
- **Andrew Feick** Associate Vice President for Sustainable Facilities Operation & Capital Planning, Facilities Management
- **Oviya Kumaran '24**
- **Linda McDougall** Director, Dining Services
- **Carr Everbach** Chair of Environmental Studies, Faculty, Engineering & Environmental Studies
- **Anthony Coschignano** Associate Vice President, Campus Services
- **Jeff Jabco** Director, Grounds & Horticulture
- **Rhonda Hilt** Greenhouse Manager, Biology & Environmental Studies

Sustainability Sage: Kristin Leitzel Hoy '07

Outcomes

Conducted stakeholder outreach

Sophia reached out to campus stakeholders through interviews and a survey. She met with 12 faculty and staff members to ask about food production, access and education, dining, curriculum, and food justice. Further, Sophia developed a survey for Environmental Studies students to learn about their interest in food-related curricular opportunities.

Developed a long-term plan for food production at Swarthmore

The stakeholder feedback was used to create a 3-5 Year Plan to implement key goals for Swarthmore's food system. In addition to concrete goals and timelines for the future of food production on campus, the plan includes careful documentation of the history of food production at Swarthmore and compiles past work, research, and recommendations around food production and sourcing.

Held engagement events for the student body and outer community

Sophia helped support a number of engagement activities on campus to help students become involved and learn more about food sustainability. This included supporting an event initiated by the Good Food Garden Club to build tables and benches in the Garden Collective, hosting a healthy soil workshop, microgreen growing event, and mulching event in the Garden Collective, and participating in EarthFest 2022 to teach students about growing microgreens.



Sophia spreading mulch in a Fall 2021 event.



Students creating garden beds during April 2022 EarthFest event.

Future Work & Recommendations

The long-term plan provides a number of recommendations to the Food Systems Working Group, including identifying opportunities and spaces for food production and programming (both curricular and extra-curricular), using a food-justice lens in all campus food work, suggestions for long-term upkeep of existing food-growing spaces, and ways to improve stakeholder collaboration and food sharing.

Sophia will continue work as a 2022-23 Senior PSRF to support implementation of this plan.

Roadmap to Zero Carbon: Student Engagement

Aaron Urquidez '22 (he/him)



Mission

The Roadmap to Zero Carbon Student Engagement Project seeks to strengthen interdepartmental communication strategies and inform the student and wider campus community about the need for and impact of the Roadmap to Zero Carbon on campus.

Background & Objectives

Swarthmore's Board of Managers approved the implementation of the [Roadmap to Zero Carbon](#) energy plan in Spring 2021. The RTZC will transition Swarthmore's heating and cooling infrastructure away from fossil-fuel combustion to geo-exchange coupled with renewable energy to achieve carbon neutrality by 2035. In order to do so, the College is constructing a geo-exchange plant in the basement of the Dining and Community Commons and a geo-exchange wellfield in the center of campus, to be completed in phases over the next 13 years. Given the scope, complexity, and campus impact of the RTZC, Aaron's project set out to:

- Improve student understanding of the Roadmap to Zero Carbon and the development process.
- Facilitate pathways for students and the wider community to learn from the construction process and new heating/cooling systems.
- Strengthen communication channels and relationships around the Roadmap to Zero

Project Team

Mentors

- **Andy Feick** Associate Vice President for Sustainable Facilities Operation & Capital Planning, Facilities Management
- **Elizabeth Drake** Director, Office of Sustainability

Project Board

- **Alexandra Sastre '05** Associate Director of Campus Communications, Communications
- **Alexander Flowers '21** Sustainability & Engaged Scholarship Fellow, Office of Sustainability
- **Carr Everbach** Chair of Environmental Studies, Faculty, Engineering & Environmental Studies
- **James Adams** Director, Sustainable Maintenance
- **Rachel Head** Director, Office of Student Engagement
- **Ryan Jin '24** Green Advisor
- **Sophia Plata** Faculty, Engineering



Steam plant to be replaced by geo-exchange/

Carbon among the Office of Sustainability, Facilities and Capital Planning, the external Program Manager, Communications, and other key stakeholders.

Outcomes

Student outreach and data-gathering

Aaron conducted outreach efforts to engage with and inform the student body about the Roadmap to Zero Carbon, including a tabling and survey event and information sessions with student stakeholders like the Green Advisors and Admissions Office tour guides.

Institutional benchmarking

Several colleges and universities that completed or initiated geo-exchange projects were contacted to learn any best practices or opportunities to engage the campus community with the project.

Engagement strategy and timeline

Drawing on outreach to students, the communications survey, and institutional benchmarking, Aaron developed an engagement outline and recommendations for the Office of Sustainability and Facilities and Capital Planning to reference as it communicates about the project through its first phases. The strategy identifies key groups and moments to engage with the student body as construction begins later this year.

Future Work & Recommendations

In addition to the engagement strategy and timeline, Aaron developed recommendations for future work:

- Develop an information session about the construction work for incoming students, particularly those students who will live in dorms closest to the drilling.
- Provide multiple access points for learning more including on-site signage, a robust, informative website, information sessions, and more.
- Continue to ensure close collaboration during the construction process between key departments including Capital Planning and Facilities, the Office of Sustainability, Office of Student Engagement, Communications, and Admissions.

This project will continue as a Senior PSRF project in the 2022-23 academic year.



Aaron talking with community members about the RTZC during Fall 2021 Magill Walk tabling.

Climate Community

Alana Ballagh '22 (she/her)

Jorge Lopez Nava '23 (he/him)



Mission

The primary goals of this project were to (1) engage with all members of the Swarthmore community around the climate-justice movement, particularly members who do not typically engage with sustainability on campus, and (2) engage with the many issues that intersect the climate crisis, such as housing, economic justice, safety, food, racial justice and education.

Background & Objectives

This year's Climate Community project builds on two previous iterations of the project that have supported the Office of Sustainability in increasing all-campus engagement in the climate-justice movement

This year, the Climate Community project developed the following objectives:

- Identify stakeholders across campus excited about collaborating with the Office of Sustainability.
- Plan and execute community events in collaboration with identified stakeholders in different forms based on the stakeholders' engagement goals.
- Engage and build relationships with cultural groups on campus including the Black Cultural Center, the Intercultural Center, and the Women's Resource Center to create intersectional conversations about the climate crisis via community programming.
- Support Senior PSRF Martin Tomlinson '23 on the timeline, logistical planning, advertising, and facilitation of Climate Essentials.

Project Team

Mentor

- **Elizabeth Drake** Director, Office of Sustainability

Project Board

- **Carl Sveen** Associate Director, Center for Innovation & Leadership
- **James Padilioni** Faculty, Religion & Environmental Studies
- **Nusaybah Estes '21** Civic & Environmental Engagement Fellow, Lang Center for Civic & Social Responsibility
- **Oswaldo Morales Solorzano '21** Sustainability & Engaged Scholarship Fellow, Office of Sustainability
- **Sabrina Labelle** Protestant Student Advisor, Interfaith Center

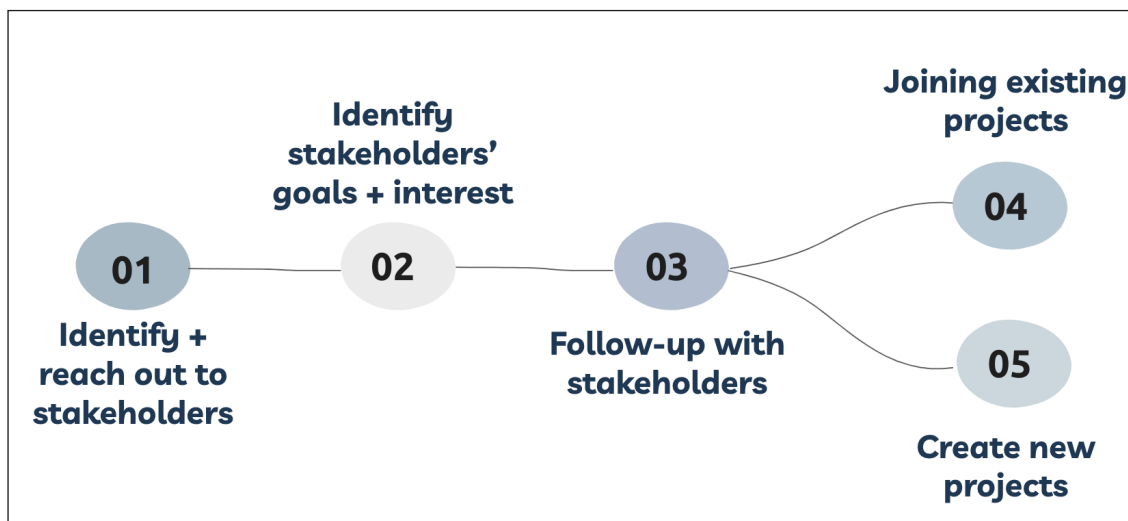
Sustainability Sages

- **Jennifer Holzer '05**
- **Jonathan Gilligan '82**

Outcomes

Pathways for stakeholder engagement

The project's main commitment was to identify and work directly with stakeholders on developing or collaborating on programming.



Process flowchart describing the Climate Community project's methods for collaboration

The first step was to engage with on-campus stakeholders. Alana and Jorge sent emails to all stakeholders introducing the Climate Community project and inquiring about their year-long programming goals and interest in collaborating. Follow-ups were sent to stakeholders who expressed interest following the initial email. Programming ideas were then developed based on and in collaboration with these partners.

Programming

Programming took two forms: (1) bringing a climate lens to existing programming and (2) developing new programming in collaboration with stakeholders to raise questions at the intersection between the climate crisis and stakeholders' interests.

Collaborations with existing programming included the monthly Community Conversation, hosted by the Interfaith Center, and the monthly Conversations of Care, hosted by the Intercultural Center interns.

New programming included an alumni panel, hosted in collaboration with Career Services; an event highlighting the international impacts of the climate crisis, hosted in collaboration with i20 and the International Students Committee; and a library exhibit on Earth Day 1970, hosted by the campus Libraries; Friends Historical Library, and Peace Collection.

EarthFest

A core component of the project was organizing a week-long EarthFest that ran from April 18 to April 22. The series featured 22 events hosted with over a dozen individual and departmental collaborators and was attended by 400+ community members.



Collage of photos taken during EarthFest in April 2022.

EarthFest achieved the desired outcome of engaging with many stakeholders across the Swarthmore community. By doing outreach across campus, it became obvious that many individuals, offices, and departments were either already hosting events related to environmentalism or very interested in bringing climate and sustainability lenses to their work. EarthFest strengthened connections with collaborators and created long-term change. For example, the posters in the Crumb Cafe highlighting waste stream sorting and the reusable utensil discount will remain posted. Collaborators all voiced a strong commitment and interest in bringing sustainability into their practices.

Future Work & Recommendations

As a result of this project, the Office of Sustainability has been able to enhance its relationships with groups on campus not frequently worked with. These relationships can be developed to re-host events or explore new programming. Collaboration opportunities are clear and many different groups were able to concretely bring sustainability themes to their programming.

Recommendations for further engagement are (1) utilize the existing pathways and relationships for collaboration and (2) engage early in the year. Stakeholder outreach is a long process. It was found that collaborating with students, particularly when they work as part of other established departments on campus, is an effective and efficient way to engage and develop programming.



Diagram showing the intersections of the climate crisis.

ChesterSemester

Juliana Lin '22 (she/her)

Mission

The ChesterSemester PSRF project seeks to connect students and community partners in of engaged scholarship and works towards building, maintaining, and strengthening relationships between Swarthmore College and the Chester community.

Background & Objectives

ChesterSemester is an interdisciplinary course on social change with an engaged scholarship (ESCH) internship component. The program supports student collaboration with community partners in ways that center community needs and foster environments of reciprocity and mutual flourishing. It emphasizes bringing just sustainability and environmental well-being into practice.

Juliana's PSRF project had the following objectives:

- Ensure that the ChesterSemester program is a mutually beneficial and fulfilling program for students and community partners.
- Transition to a year-long program featuring long-term and active relationships with Chester community partners open to student partnership.
- Take steps towards a long-term program vision with a wide variety of engaged scholarship courses.
- Emphasis environmental justice as a wide umbrella that extends beyond work directly involving the Covanta incinerator in Chester.



Project Team

Mentors

- **Ashley Henry** Program Director, Lang Center for Civic & Social Responsibility
- **Mark Wallace** Faculty, Religion and Social Justice

Project Board

- **Ben Berger** Executive Director, Lang Center for Civic & Social Responsibility, Faculty, Political Science
- **Oswaldo Morales Solorzano '21** Sustainability & Engaged Scholarship Fellow, Office of Sustainability
- **Nusaybah Estes '21** Civic & Environmental Engagement Fellow, Lang Center for Civic & Social Responsibility
- **Carr Everbach** Chair of Environmental Studies, Faculty, Engineering & Environmental Studies
- **Clare Hyre** Associate Director of Sustainability, Office of Sustainability

Sustainability Sage: Patrick Houston '17



A ChesterSemester class in Fall 2021.

Outcomes

Redeveloped program structure

Starting in 2022-23, the ChesterSemester Fellowship will be a year-long program to allow for the formation of long-term and reciprocal relationships. Fellows should be paid such that they receive academic credit for one semester and are paid the second semester. Roles and responsibilities were also redistributed to receive more support from the Lang Center's Engaged Scholarship Fellow and faculty committee roles.

Refined program curriculum

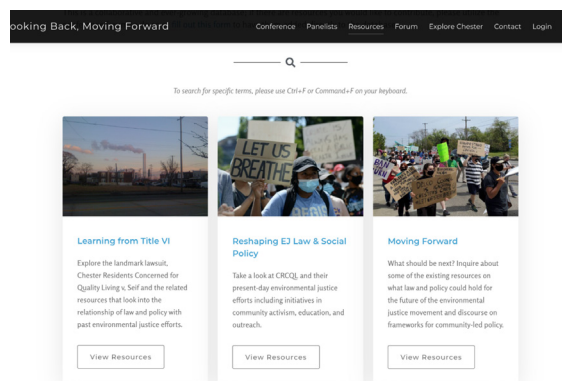
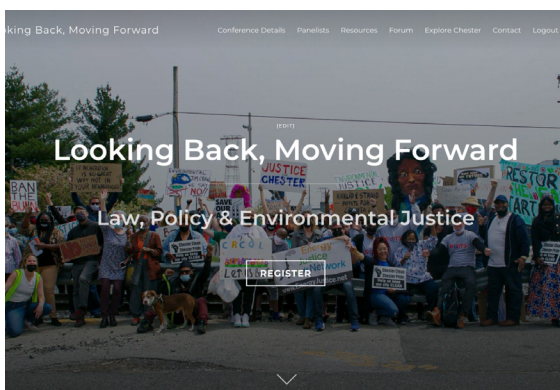
Several refinements and additions were made to the curriculum including a van tour of Chester, discussions of decoloniality in engaged scholarship, and public-facing final presentations. Class time was also extended to make room for more discussion and support.

Coordinated environmental justice conference

In April 2022, a coalition of Swarthmore and Chester community members hosted the Looking Back, Moving Forward: Law, Policy, and Environmental Justice Webinar Conference. Juliana supported coordination for the conference and, in collaboration with eight ChesterSemester Fellows, created a website that includes a rich database of annotated documents and reports.



Spring ChesterSemester Final Presentations.



Left: Homepage for Looking Back, Moving Forward conference website. Right: Screenshot of resources and databases available on conference website.

Future Work & Recommendations

Recommendations were provided to improve the program structure that included ways to implement a successful year-long program, paying fellows for their work, and for further developing the ChesterSemester curriculum.

Next year, ChesterSemester will be supported by the Lang Center for Civic & Social Responsibility's Civic & Environmental Engagement Fellow.

Sustainability in the Curriculum

Alice Du '24 (she/her)

Mission

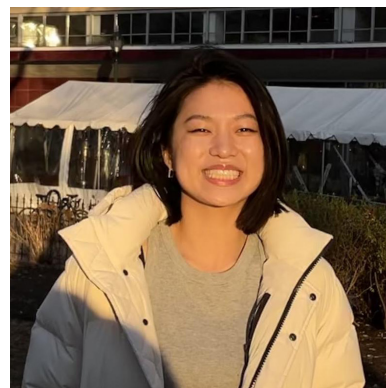
Embodying the College's mission statement to "Empower all who share in the community to flourish and contribute to a better world," the importance of cultivating in Swarthmore students the ability to navigate a world with rapidly worsening environmental consequences cannot be overstated. When students leave Swarthmore, they should have a better understanding of how to navigate the climate crisis and what each individual can contribute.

Background & Objectives

This project builds on several years of Curriculum PSRF projects that seek to infuse sustainability themes and literacies into the College's academic program. This year, the project focused independently on faculty and students as the core stakeholders of curriculum development and engagement.

For faculty, the objective was to establish and support the Environmental Studies Faculty Affiliates program, which aims to create a space for non-ENVS faculty to engage in sustainability through conversation and access to resources for incorporating sustainability themes in their curriculum.

For students, the objective was to gauge student perspective and priorities on sustainability themes within the context of an uncertain future.



Project Team

Mentor

- **Carr Everbach** Project Mentor, Chair of Environmental Studies, Faculty, Engineering & Environmental Studies

Project Board

- **Jean-Vincent Blanchard** Associate Dean of the Faculty for Academic Programs, Faculty, French & Francophone Studies
- **Edwin Mayorga** Co-Chair of Educational Studies, Faculty, Educational Studies & Latin American and Latino Studies
- **Rachel S. Buurma** Co-Director of the Aydelotte Foundation, Faculty, English
- **Oswaldo Morales Solorzano '21** Sustainability & Engaged Scholarship Fellow, Office of Sustainability

Sustainability Sage: Sarah Jaquette Ray '98



2021-22 ENVS Faculty Affiliates.

Healthy Building Materials

Olivia Fey '23 (she/her)

Mission

The purpose of the Healthy Building Materials project was to incorporate language regarding restrictions on unhealthy building material into Swarthmore College's Design Standards and Guidelines to better define the College's commitment to sustainable and healthy buildings and to institutionalize material standards.

Background & Objectives

The materials used in capital projects and maintenance should be considered in light of their life-cycle health impacts on people and the environment. The topic of safe building materials is a rapidly changing field and there are opportunities to improve the sustainability of our building materials and mitigate health risks within and beyond our community.

In coordination with the Capital Planning and Project Management office, this project sought to update Swarthmore's Design Standards and Guidelines to restrict use of materials that may pose human and environmental health risks. The materials considered drew on the Materials Red List created by the International Living Future Institute (ILFI), which is an inventory of chemicals and elements in the building industry known to pose human and environmental health risks. This process was aimed to advance the conversation around sustainable and healthy building materials at Swarthmore and among other higher education institutions.



Project Team

Mentor

- **Roderick Wolfson** Senior Planner/ Project Manager, Capital Planning & Project Management

Project Board:

- **Alexander Flowers '21** Sustainability & Engaged Scholarship Fellow, Office of Sustainability
- **Bill Maguire** Maintenance Manager, Facilities Management
- **Chris Graves** Faculty, Chemistry & Environmental Studies
- **Colleen Battista** Environmental Health and Safety Officer, Finance and Administration
- **Elizabeth Drake** Director, Office of Sustainability
- **Jim Adams** Director, Facilities Management
- **Mary Ciurlino** Associate Project Manager/ Interior Designer, Facilities Management
- **Susan Smythe** ADA Program Manager/ Senior Project Manager, Facilities Management

Sustainability Sage: Daniel Pederson '94

Outcomes

This project dived into the topic of sustainable and healthy building materials at Swarthmore College. Olivia conducted extensive research on all Red List materials to identify their health impacts and feasibility of replacement. She and her project team then used this research to adapt the Design Standards and Guidelines to affirm the College's commitment to healthy building materials and added language stating the College's preferences to avoid specific materials. This requires architects to acknowledge use of materials on the Red List lacking viable or reasonable alternatives with the project manager prior to the start of construction. This will help prevent the use of harmful materials and provide useful information to architects and project managers on the risks of various products. It also promotes and encourages conversation on finding and using safer alternative materials.

The project also contributed to Swarthmore's institutional knowledge of building materials by compiling extensive research on each of the Red List material classes into formats that can be referenced in future sustainability work and campus construction.

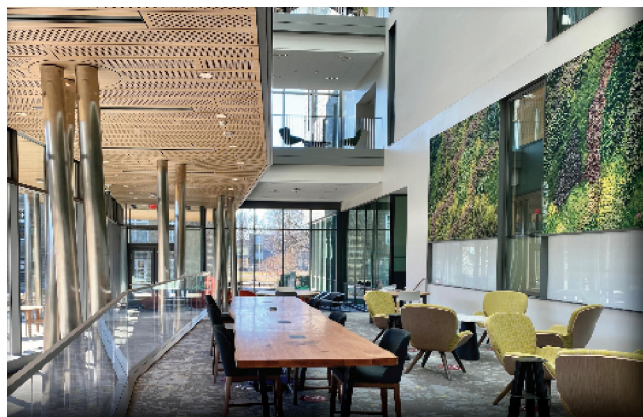
Lastly, the project connected Swarthmore to several other institutions working to align their own design standards and practices with the Red List.

Future Work & Recommendations

This project created new and valuable space for consideration of the materials Swarthmore uses in campus buildings. With the addition of language to the College's Design Standards and Guidelines, future projects will have checks to ensure thoughtful materials selection.

Going forward, Olivia recommends that Swarthmore do the following:

- Keep up to date with the rapidly changing field of healthy building materials.
- Expand the scope of consideration to include whole-life-cycle impacts of materials in terms of health and environmental impacts.
- Consider the greenhouse gas emissions impact of materials during production/harvest, transportation, and installation.
- Continue compiling alternatives to and replacements for Red List materials.



View of the common space in Singer Hall.



Aerial view of Parrish Hall.

Zero Waste in Dining

Huiying Xiao '23 (she/her)

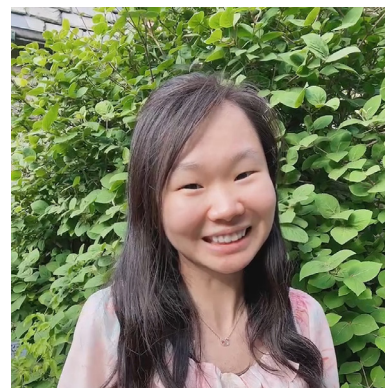
Mission

The Zero Waste in Dining project seeks to connect and collaborate with the community to advance intentional and permanent zero-waste mechanisms at Swarthmore.

Background & Objectives

Swarthmore has committed to becoming a Zero Waste campus as part of our efforts to reduce environmental harm and promote just and sustainable systems. This project seeks to build on the progress Swarthmore has made through waste diversion, while recognizing and addressing the limitations of diversion alone.

This year's project had three components. The first centered on tracking anticipated large waste streams within the planned Dining and Community Commons with the aim of developing waste-management mechanisms for those waste streams. The second category aimed at facilitating the Reusable Takeout Container pilot program and identifying opportunities to reduce waste through the use of reusables. The third component focused on the dining and campus culture around waste, including students' direct engagement with waste and cultural factors on campus that inform decision-making regarding waste in campus dining spaces.



Project Team

Mentors

- **Anthony Coschignano** Associate Vice President, Campus Services
- **Clare Hyre** Associate Director, Office of Sustainability

Project Board

- **Linda McDougall** Director, Dining Services
- **Oswaldo Morales Solorzano** Sustainability & Engaged Scholarship Fellow, Office of Sustainability
- **Susan D. Smythe** Senior Project Manager, Facilities Management
- **Timothy Smith** Retail Manager, Dining Services

Sustainability Sage: HG Chissel '96



Rendering of the Dining & Community Commons project, which will open Fall 2023.

Outcomes

Planned for dining and community commons waste streams

Huiying worked with key staff to identify, discuss, and plan for waste streams in the Dining and Community Commons project. The new Dining Center portion of the project is set to open in Fall 2022.



Left: Students enjoying a meal in the main dining area of Sharples. Right: Rendering of the main dining area in the Dining and Community Commons.

Continued Reusable Takeout Container pilot program

Huiying supported the Reusable Takeout Container Pilot Program, launched during the 2019-2020 academic year by PSRF Samantha Barnes '22. It provides interested students with a reusable container for getting takeout meals from the dining hall. Huiying conducted and analyzed a participant survey and advanced the conversation for implementing additional drop-off sites.



A reusable takeout containers.

Conducted stakeholder outreach

Huiying conducted outreach with both student groups such as Student Government, Garnet Go Green, and the Green Advisor program and faculty and staff groups such as Environmental Services, cafe and retail staff, and grounds staff to learn more about campus culture around waste and identify ways to collaborate with stakeholders to reduce waste and instill better habits.

Future Work & Recommendations

Expected to open Fall 2023, the new Dining Center will help consolidate the dining experience and dining waste streams at Swarthmore, provide opportunities to expand the reusables program, and more. Several recommendations were developed for further reducing waste in dining streams, including improving the reusables program, increasing the accessibility and salience of resources like the Green Events Guide, and identifying key partners to help create a strong zero-waste culture at Swarthmore.

Senior President's Sustainability Research Fellows

This year, the PSRF program supported seven previous PSRFs to return as Senior Fellows and complete an additional year of project work. This year's cohort of Senior Fellows worked on a wide range of sustainability projects, ranging from continuing previous projects, to supporting current PSRFs, to starting new projects.



Martin Tomlinson '23

Martin ran the third Climate Essentials workshop and speaker series, which seeks to equip participants with knowledge and space to engage with the climate crisis and its intersections.



Daniel Torres Balauro '23

Daniel worked on community engagement with the UNFCCC Conference of Parties (COP), which he attended in Glasgow last fall before hosting a panel discussion during EarthFest in April 2022.



Atticus Maloney '22

Atticus continued work on sustainability tracking and assessment to help the Office of Sustainability align efforts with sustainability goals and prepare for the upcoming 2023 reporting cycle for the Sustainability Tracking, Assessment & Rating System™ (STARS).



Chelsea Semper '22

For the Fall 2021 semester, Chelsea worked with the Crum Woods Stewardship Committee and this year's Crum Woods PSRF project, including supporting the Upper Crum Swale restoration project.



Chantal Reyes '22

For the Fall 2021 semester, Chantal helped organize the annual Waste Characterization Study and facilitated discussions around equitable zero waste.



Colin Donahue '22

For the Fall 2021 semester, Colin helped the Environmental Studies program organize a sustainability curriculum development workshop for faculty that took place in January 2022.



Olivia Stoetzer '23

For the Fall 2021 semester, Olivia worked with the Carbon Charge Working Group to conduct research and develop a proposal for the departmental Air Travel Carbon Fee, which was later approved and went into effect for the College's 2023 fiscal year.



Questions? Comments?

Reach us at

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or learn more at

*[swarthmore.edu/sustainability/
presidents-sustainability-research-fellowship](http://swarthmore.edu/sustainability/presidents-sustainability-research-fellowship)*