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This report was prepared by Maria Maring, Vice Chair External

Jack Reicherts

LETTER FROM THE CHAIR

It has been an honor to serve as Chair of the Student Sustainability Committee for the 2021-22 year. As we release our Annual Report, I am pleased to celebrate the many achievements of our committee and the impact that we have had on our campus.

One of the most exciting developments this year was the launch of our mailing list. We knew that connecting with students was a crucial aspect of our work, and we are thrilled to have recruited over 400 subscribers in just two semesters. The mailing list has allowed SSC to better engage with the students who are most interested in sustainability and update them on our projects and events.

Additionally, SSC expanded our operations by introducing a new class of member, called General Members. General Members have played an important role in helping us plan and promote events, as well as providing feedback on our working groups. Over 100 students have joined our Discord server to stay involved in the discussion and contribute to our efforts.

SSC also took a proactive approach to supporting innovation on campus by hosting an application workshop — giving passionate students the opportunity to identify problems, develop solutions, and write a full-fledged SSC application. This workshop demonstrates our commitment to supporting sustainability projects beyond just providing funding.

These developments are steps forward in the evolution of SSC as we focus on both supporting projects *and* connecting students with opportunities in campus sustainability. As Chair, it has been a privilege to work with the passionate undergraduate students, graduate students, faculty, and staff members who make our work possible and push us to achieve even more.

Thank you for your support and for helping us make a positive impact on our campus and beyond.

Sincerely,

Jack Reicherts

Chair, Student Sustainability Committee

LAND ACKNOWLEDGEMENT STATEMENT

SSC would like to begin its Annual Report by recognizing and acknowledging that we are on the lands of the Peoria, Kaskaskia, Piankashaw, Wea, Miami, Mascoutin, Odawa, Sauk, Mesquaki, Kickapoo, Potawatomi, Ojibwe, and Chickasaw Nations. These lands were the traditional territory of these Native Nations prior to their forced removal; these lands continue to carry the stories of these Nations and their struggles for survival and identity.

As a land-grant institution, the University of Illinois has a particular responsibility to acknowledge the peoples of these lands, as well as the histories of dispossession that have allowed for the growth of this institution for the past 150 years. We are also obligated to reflect on and actively address these histories and the role that this university has played in shaping them. This acknowledgment and the centering of Native peoples is a start as we move forward for the next 150 years.

For more information, visit https://chancellor.illinois.edu/land_acknowledgement.html



ABOUT:

Purpose & Membership

The Illinois Green Fund (IGF) is currently the largest university sustainability funding pool in North America and is stewarded by SSC, a group of undergraduate and graduate students dedicated to building a more sustainable campus. With the partnership of a team of staff and faculty members, SSC allocates \$1.59 million annually toward the development and seed funding of projects that have an environmental impact on the university community. The fund is financed through the collection of two student-initiated fees, the Cleaner Energy Technologies Fee and the Sustainable Campus Environment Fee. By providing consultation, thought leadership, and funding, the IGF and SSC empower Illinois students, staff, and faculty to be changemakers in sustainability.

2021-22 Membership

Student Board

Jack Reicherts Chair

Caitlin Bloomer Vice Chair Internal

Maria Maring Vice Chair External

Julia Marsaglia Communications Project

Coordinator

Cici Teng Communications Project Lead

Holly Hahn Communications Project Lead

Matt Flenniken Communications Project Lead

Tori Lawlor Communications Project Lead

Emmarie Alexander Community Outreach Lead

Sari Alkhatib Professional Development Lead

Nicole Arnold Student Outreach Lead

Mallory Mahen Education & Justice Working Group

Chairperson

Scotlyn Belew Energy Working Group Chairperson

Enzo Yang Floating Working Group Chairperson

Emma Loew Floating Working Group Chairperson

Lucy Nifong Food & Waste Working Group Chairperson

Albert Rios Land, Water, & Air Working Group Chairperson

Natalie Hill Transportation & Infrastructure Working

Group Chairperson

Faculty Advisors

Eric Benson, M.F.A. Kevin McSweeney, Ph.D.

Jessica Brinkworth, Ph.D. Esther Ngumbi, Ph.D.

Barry Houser, M.M. Kyle C. Smith, Ph.D.

McKenzie Johnson, Ph.D. Andrew Stumpf, Ph.D.

Staff Advisors

Hunter Kelley Assistant Coordinator, Student Org

Finance Center

Lizette Mendoza- Intern, Student Sustainability

Hernandez

Samuel Yoo Assistant Director, Student

Sustainability

Ex-Officio Members

Alexandra Gergova Chairperson, ISG Committee on

Environmental Sustainability

Gina Lee-Olukoya, Ph.D. Director, Student Engagement

Lisa Peacock Facilities & Services, Sustainability

Morgan White Facilities & Services, Sustainability

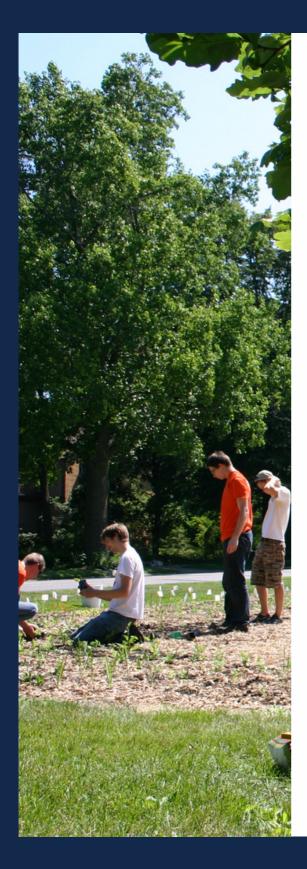
Amanda Wahba Fraternity & Sorority Affairs

David Guth David Guth

Eric Green iSEE Representative

Meredith Moore iSEE Representative

FINANCIALS



SSC is charged with stewarding the budget for two student-initiated fees:

• Cleaner Energy Technologies Fee | \$2.00 per student per semester

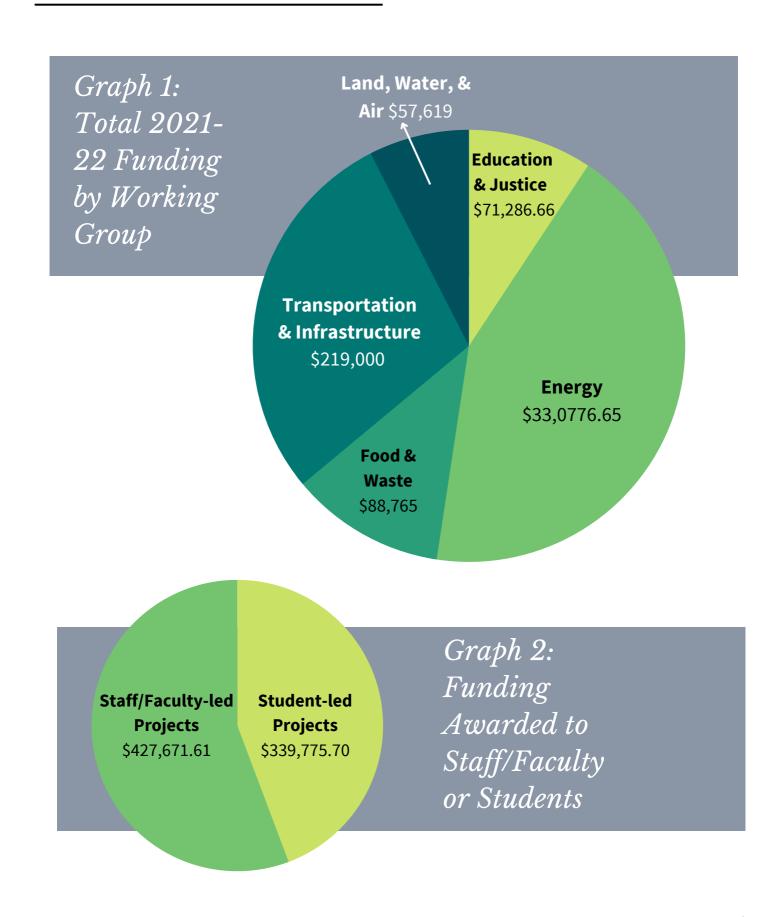
 A fee used to purchase cleaner energy technologies for campus, including solar, wind, hydrogen, and geothermal projects; energy efficiency purchases; and the purchase of renewable energy from non-University producers.

• Sustainable Campus Environment Fee | \$12.06 per student per semester

 A fee to help establish a sustainable campus environment by financing initiatives such as green buildings, engagement of the University community, recycling, energy efficiency, and environmentally responsible purchasing.

Together these two fees amount to an annual budget of over \$1.59 million, called the Illinois Green Fund. Since the inception of the fees in 2008, SSC has allocated \$16.7 million toward funding 353 projects.

FUNDING OVERVIEW



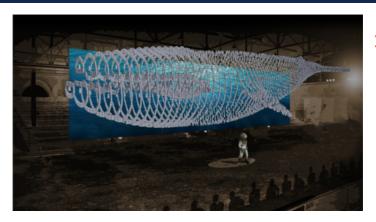


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CETACEAN (The Whale) | \$10,000



Staff/ Faculty led

The 100-foot blue whale marionette will be constructed of recycled plastic by students. It will be showcased at the Stock Pavilion, complete with a theatrical performance. CETACEAN will serve as an educational platform for ideas about ecological systems, climate change, and resilience – while embodying collaborative processes, sustainability, and storytelling.

Engineering a Greener Future Sustainability Mural Project | \$3,966.66

By shining light on university sustainability initiatives via the perspective of Illinois student artists, this project aims to empower environmentally-conscious student thinkers and inspire sustainable action. This mural tells students that they are not alone in the fight against climate change; the Power of I has their back.

Environmental Justice Outreach and Research Initiative (EJORI)

EJORI was a collaborative program to engage undergraduate students in academic scholarship & community outreach for environmental justice. This project was later withdrawn.

Staff/ Faculty led

Staff/

Faculty



iCAP Resilience Theme Project Management | \$19,025

This grant funds professional staff project managerial support for six months to advance the resilience objectives in the iCAP. A major priority for this project is the planning and implementation of engaging the campus community, surrounding communities, community partners, and stakeholders in the development of an Environmental Justice Plan that assesses metro area resilience and actively addresses related issues.

Sustainability Grammys | \$9,000

The goal of the Sustainability Grammys is to reward registered student organizations (RSOs) for their active participation in sustainability initiatives. In April 2022, ten student groups received recognition and scholarships during a semiformal award ceremony and celebration.

Utility Boxes: Art and Sustainability | \$440.00

This mural on a utility box aims to put the concept of renewable energy "in sight, in mind."

Student led

Student

Sustainable World Network | \$28,855

This project aims to create a well-resourced network of science educators dedicated to the teaching and learning of core sustainable education. The project members are creating a database of digital sustainability education resources that will be freely available to preservice and in-service teachers.

Staff/ Faculty led

Staff/

led

Biomass Boiler Upgrades to Ash Handling System | \$12,156.61

Faculty Over the past four years, several low-cost repairs have been attempted on the Energy Farm Biomass Boiler, but they have failed. To remedy these failures more permanently, it has been recommended that the boiler be upgraded to equipment typically used in a larger boil system.

Engineering Assessment of HVAC Indoor Air Quality: Performance Verification for Energy Efficient Infection Control | \$11,288

Staff/ In light of the COVID-19 pandemic, this project Faculty collaborates with the company SafeTraces to verify led ventilation and filtration performance in indoor spaces with real-world data. The project is: identifying potential hotspots, assessing ventilation and filtration, verifying area isolative efficacy, and informing remediations for the sake of both energy efficiency and human safety.

Morrill Hall Sustainable Fume Hood Upgrades | \$180,000

The current ventilation system at Morrill Hall was installed in 1965 and consumes over \$1 million in utility costs every year. This project installs variable-air-volume (VAV) fume hoods in conjunction with an HVAC upgrade. Modernizing the mechanical and ventilation systems at the same time will increase efficiency and optimize building operations.

Student led

Student

Renewable Energy House | \$2,935

This project is 3D-printing a 1' x 1.5' x 2' house that incorporates different types of renewable energy sources like solar panels, wind turbines, and geothermal. The house will be used at outreach events on campus and at local schools.

Submetering for Supporting Energy Savings Sustainability | \$89,198.52

To design effective energy-saving strategies, it is essential to first understand how energy is used by different building systems and spaces. This project is outfitting buildings with submetering devices to collect granular and fine data on building energy consumption enduse.

Intelligent Mobile Sensing Unit for Building Energy Efficiency | \$35,198.52

Most of the current initiatives for energy savings are not adaptive and rely on models & standards with many limitations. The Intelligent Mobile Sensing project is producing an intelligent system that can autonomously navigate campus building spaces to collect data on indoor environmental conditions (i.e., temperature, humidity, lighting levels) and then recommend indoor environmental settings for energy savings and increased occupant comfort.

Faculty

Staff/



Single-use Plastics Reuse and Elimination Protocols to Substantially Reduce Plastic Waste in Lab-Based Science and Integrate Student Campus Stewardship into Lab Training | \$81,865

Science labs produce about 5.5 million tonnes of single-use plastic annually, and supply chain disruptions can make critical lab plastics difficult to attain. This project will help resolve both of these crises. The project is developing three lines of protocols for polypropylene and polystyrene reuse and replacement.

Student Services Arcade Building Water Bottle Fillers | \$6,900

Concerned about single-use plastic consumption, students, staff, and visitors have requested a water bottle filler add-on to the two existing water fountains at this location. The outcome will decrease plastic waste, be economically conscious, and provide more accessibility to water.



Effectiveness of Feedback in Reducing Water & Energy Use in Residence Hall Showers | \$9,972

This project is determining which methods of direct interaction with a consumer result in significant behavioral change regarding water usage. Individual shower meters across several residence halls are being installed to collect control data, or baseline shower duration and water use. After trying methods like competitions among floors to conserve water or representing water usage in more familiar terms, this project will determine what feedback method is most effective.

Identifying the Campus Benefits of a Large-Scale Prairie Experiment (Part 2) | \$34,000

There is a 13-acre prairie experiment near campus that was established in 2018 with funding from a USDA grant. At the living laboratory, researchers can examine interactions between soil, microbes, prairie plants, agrochemicals, and bees with the goal of identifying best prairie restoration practices for habitats adjacent to crops. Now, the project will be extended to have students lead these efforts.

Pilot for National Green Infrastructure Certification Program (NGICP) for University Operations | \$1,647

The NGICP provides entry-level workers the skills to properly construct, inspect, and maintain green stormwater infrastructure. Facilities & Services will use this grant to send three staff to NGICP training.

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Staff/ Faculty

Faculty led



Sustainable Biochar for Phosphorus Removal and Recovery (R2) | \$9,000

Agricultural phosphorous runoff is the dominant factor for water quality deterioration, while increasing phosphorous fertilizer costs also jeopardize farmers and global food security. Using engineered biochar – a highly absorbent material – the Sustainable Biochar project is finding a way to recollect and recover runoff phosphorus to reuse it as fertilizer.

Soil Boring Database for UIUC Campus | \$3,000

Since the 1930s, the Department of Civil and
Environmental Engineering (CEE), the Illinois State
Geological Survey (ISGS) in the Prairie Research Institute, and
Facilities & Services (F&S) have worked together to
characterize the underground geological and engineering
conditions on campus. However, each of these campus units
has retained its own individual records; there is no central
database for the information, and the records are not
available in a geospatial map service. The Soil Boring
Database project is bringing together all soil boring records
from campus building projects into one database, which will
be available through the ISGS ILWATER mapping project.

Staff/



Purchase and Install Bike Racks for Covered, Secure Bike Cage at ECE | \$3,000

Agricultural phosphorous runoff is the dominant factor for water quality deterioration – while increasing phosphorous fertilizer costs also jeopardize farmers and global food security. Using engineered biochar, a highly absorbent material, this project is finding a way to recollect and recover runoff phosphorus to reuse it as fertilizer.

Purchase and Install New Eco-Counters (December 2021) | \$20,000

Based on the preliminary results of the Facilities & Services Mode Choice Survey, 90% of students reported that walking is among their top three preferred modes of travel on campus. This project is installing multiple sets of bicycle and pedestrian counters to support future research, projects, and policy – and it will indicate the need for investments in walking.

Purchase and Install New Eco-Counters (May 2022) | \$120,000

See above description.

Staff/ Faculty led

Low-cost Inspection and Sustainable Repair of Campus Pavements | \$76,000

Currently, inspection techniques require experienced field personnel to classify cracking, which is costly.

This project will deliver a smartphone and drone technology for imaging cracks, which students can use.

This project will also deliver a new sustainable and durable sealant for the rapid repair of pavement cracks.

Staff/ Faculty led

EDUCATION, ENGAGEMENT, AND OUTREACH

In the second year of its existence, the Social Initiatives (SI) Team continued to grow in big ways. In heavy collaboration with the Student Sustainability Leadership Council (SSLC), SI piloted UIUC's inaugural Student Sustainability Summit in October 2021. This month-long celebration brought together all sustainability actors from both on and off campus. The following is a list of Student Sustainability Summit programming:

- 10/2, 16, & 23 Red Bison work day
- 10/4 Agricultural Engineering Sciences Building tour, led by *Illini Urban* Farmers
- 10/4 Sustainability Trivia Night at Murphy's Pub
- 10/5 **Tuesday Talk at Bevier Cafe** with SECS President Alec Van Patten
- 10/6 Sustainable Student Farm to To
- 10/7 Wall-E movie night at Lincoln Hall
- 10/9 Participation in **Homecoming Parade**
- 10/11 Pilot Processing Plant tour
- 10/12 Green Quad Day & SSC Showcase
- 10/12/21 Tuesday Talk at Bevier Cafe with Dr. McKenzie Johnson
- 10/15 Virtual Solar Farm tour, led by F&S
- 10/18 **Stop Line 3 letter writing**, led by *Stop Line 3 CU*
- 10/19 **Tuesday Talks at Bevier Cafe** with *Aidan Brougham-Cook, Clean Meats at Illinois*
- 10/26 Tuesday Talks at Bevier Cafe with Jessica Brinkworth
- 10/26 Bevier Cafe & Aquaponics tour
- 10/26 Sustainability Research Symposium
- 10/27 Prarie Rivers Network webinar

The Student Sustainability Summit was a sweeping success, even garnering the attention of the Daily Illini: https://dailyillini.com/life_and_culture-stories/2021/10/11/students-prepare-for-first-sustainability-summit/



October 2021 Green Quad Day

Social Initiatives did it all again in April 2022 for Earth Month. The following is a list of SSC-led Earth Month programming:

- 4/5 **Tuesday Talks at Bevier Cafe** with *Matt Harvey, Citizens' Utility Board*
- 4/12 **Tuesday Talks at Bevier Cafe** with *Alexa Smith and Josh James, KarmaTrade*
- 4/19 Tuesday Talks at Bevier Cafe with Laura Haber
- 4/19 Citizens' Utility Board letter writing at Channing Murray Foundation
- 4/21 Sustainability Grammys
- 4/22 Green Quad Day
- 4/26 **Tuesday Talks at Bevier Cafe** with *Aidan* Brougham-Cook, Clean Meats at Illinois
- 4/29 **The Lorax movie night** on the Quad

SSC Chair Jack Reicherts at April 2022 Green Quad Day



Aside from Sustainability and Earth months, SI also spearheaded a **Spotlight Talk** per semester – an opportunity for students to get involved in non-campusaffiliated sustainability organizations.

SSC also hosted an **Open House** event at the beginning of each of the Fall 2021 and Spring 2022 semesters. Further making student sustainability more accessible to more students, SSC hosted five **Funding Workshops** throughout the year. These events catered to students interested in sustainability but unready to create a project application.

SSC also helped to promote and recruit students for the **Reimagine Our Future Undergraduate Sustainability Competition**. The competition aims to guide students toward innovative solutions for global sustainability problems.

The Communications Team was integral to all of these events. See below examples of their work:













To expand SSC programming further, the foundations of a new full-time Coordinator position were established. The Coordinator would focus on event planning and student outreach. Student SSC members advocated for this position by brainstorming what needs the Coordinator would fulfill. By hiring a Coordinator, SSC would broaden its impact not only by funding projects but also by:

- connecting students to the professional development, education, and community-building opportunities that SSC creates;
- spreading awareness about the Illinois Green Fund; and
- increasing campus involvement with the Illinois Green Fund.

Student Affairs would aim to hire the Coordinator during the 2022-2023 academic year.

In addition to investing in programming infrastructure, SSC was more active than ever in the fossil fuel divestment movement on campus. At the Campus Sustainability Celebration in October 2021, SSC members delivered speeches alongside the ISG President and ESC Chair, calling for the university administration to relinquish financial holdings in the fossil fuel industry. SSC cowrote and signed a statement alongside ISG, SECS, and SSLC summarizing the state of divestment efforts on campus. This letter largely fortified SSC's partnerships with other campus organizations, and it urged the University administration to take swift and essential to demonstrate the University of Illinois's commitment to fighting climate change.



SSC Vice Chair External Maria Maring delivers a speech advocating for fossil fuel divestment. SSC Chair Jack Reicherts stands far right.

COLLABORATIVE PARTNERSHIPS

Illinois is teeming with sustainability initiatives and programs across its many student organizations, departments, and research lab groups. However, much of this activity happens within isolated silos and, thus, diminishes the potentially greater impact of a more coordinated approach. SSC wants to shift away from similar initiatives coming from separate groups – and we want to advance toward connecting such efforts. We all aim to create a more sustainable campus; we will only accomplish this to the extent that we work together. To this end, SSC collaborated with the following groups in 2021-2022:

- Student Sustainability Leadership Council (SSLC)
- Students for Environmental Concerns (SECS) RSO
- Institute for Sustainability, Energy, and Environment (iSEE)
- Facilities & Services (F&S)
- Illini Union & Illini Union Green
 Team
- Illinois Student Government (ISG)
- ISG's Committee on Environmental Sustainability (ESC)

- Bevier Café
- Pilot Processing Plant
- Grand Prairie Friends
- Prairie Rivers Network
- Red Bison RSO
- Illini Urban Farmers RSO
- Sustainable Student Farm (SSF)
- Red Herring Vegetarian Restaraunt
- Karma Trade
- Citizens' Utility Board (CUB)
- Common Ground Food Co-Op
- Channing Murray Foundation



EQUITY, INCLUSION, AND JUSTICE

"Sustainability should be science based and justice guided."

One of the highest priorities of SSC is to broaden the scope of sustainability programming on campus to include all three pillars of sustainability—the environment, society, and economy. The second pillar, also known as social sustainability, is often neglected as a peripheral issue, but we are determined to make it a priority on our campus.

Social sustainability is the "development (and/or growth) that is compatible with the harmonious evolution of civil society, fostering an environment conducive to the compatible cohabitation of culturally and socially diverse groups while at the same time encouraging social integration, with improvements in the quality of life for all segments of the population." Based off a desire to be better in regard to creating these types of conditions in our community, SSC created a diversity statement to guide our current and future ambitions:

"The SSC is committed to diversity in all forms. This stems from our core belief that engaging with a wide range of ideas, perspectives, cultures, and peoples facilitates a culture conducive for greater growth. We will find ways to support one another and strive to build a community of care and solidarity towards changing the trajectory of our future for the better."

Polese M, Stren R, 2000 The Social Sustainability of Cities: Diversity and Management of Change. University of Toronto Press, Toronto, pages 15-16.





