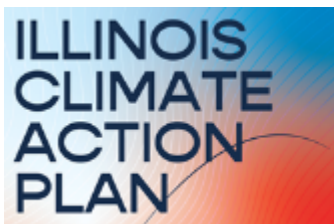


WELCOME TO THE ANNUAL

# *Campus Sustainability Celebration!*



October 17, 2022

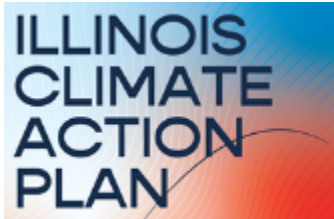


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# University of Illinois Urbana-Champaign Land Acknowledgement



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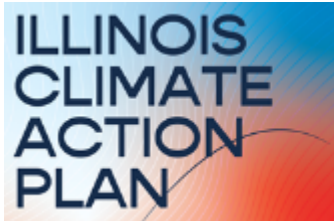


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# Jennifer Fraterriago,

*Associate Director of iSEE*



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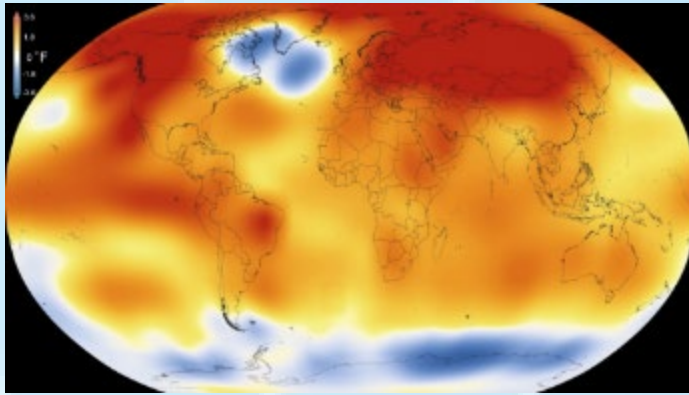


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# The Institute for Sustainability, Energy, and Environment (iSEE):

*actionable research, campus sustainability, education & outreach*

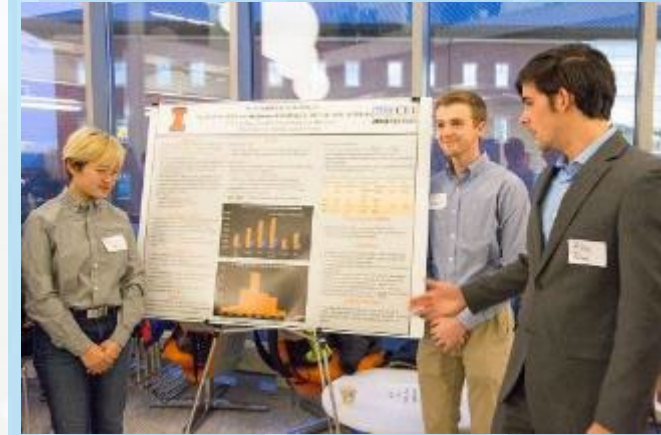
[sustainability.illinois.edu](http://sustainability.illinois.edu)



*Actionable research*

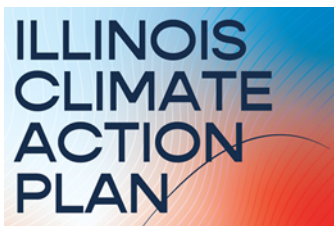


*Campus sustainability*



*Education & outreach*

**The overarching goal:** *To become a global model of sustainability by creating effective, positive change. Also, to become the “front porch” for all sorts of sustainability resources for campus and community members.*



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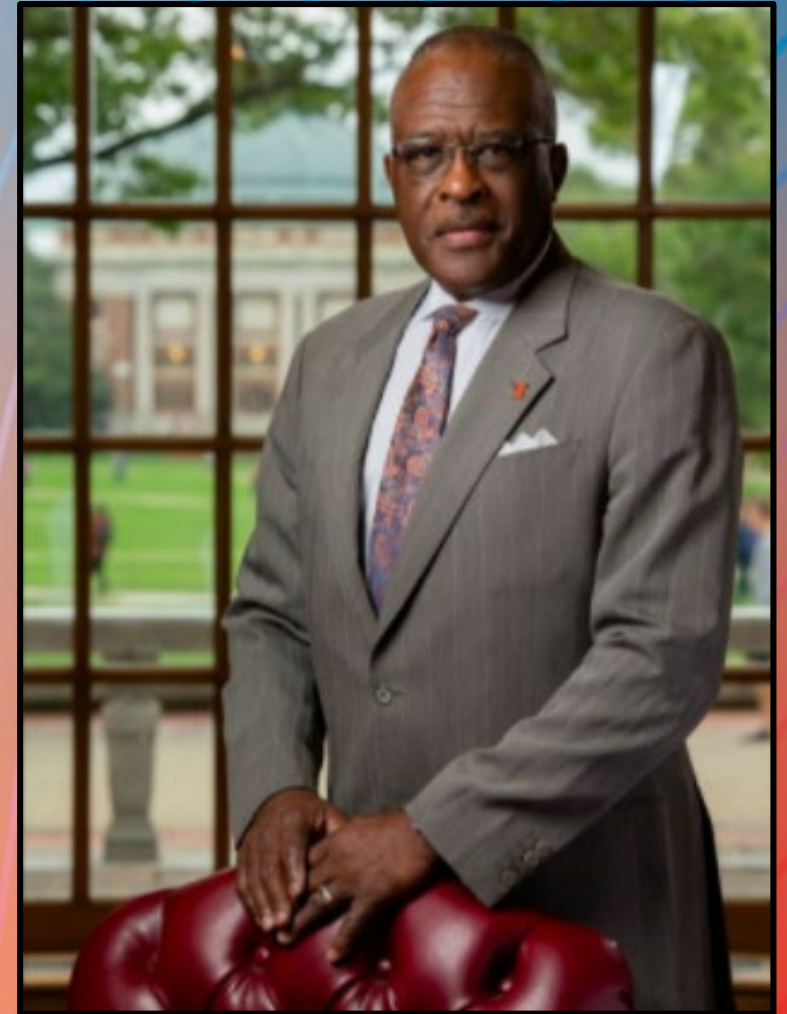


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# Robert J. Jones

## *Chancellor*



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# **Susan Martinis**

***Vice Chancellor for  
Research and  
Innovation***



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**Dr. Jennifer Fraterrigo**

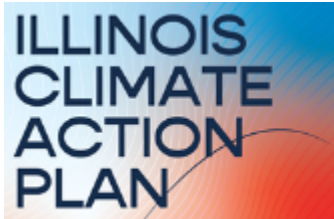
***iSEE Associate Director of Campus Sustainability***

**Morgan White**

***F&S Associate Director for Sustainability***

**Meredith Moore**

***iSEE Sustainability Programs Manager***



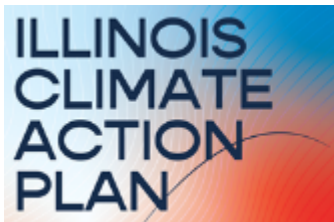
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# Waste Reduction

- Plastic reduction campaign
  - Take our Drinking Water Survey
- “Don’t Waste” partnership with Coke
- Build culture of “reduce and reuse”
- New Zero Waste Coordinator



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# Clean Energy



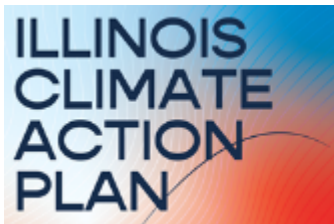
You play a part by reducing energy demand!



# Greener Campus Programs



***What can you do to help make our campus more sustainable? Get certified!***



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# Energy iCAP Team



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# Past Objectives and Projects

## Improvements in LEED Certifications

- F&S tracks LEED certifications for University buildings
- BIF, Lincoln Hall, Bousfield = LEED Platinum

## Power Plant Carbon Sequestration

- SSC funded project

## Retro-commissioning (2008-continued)

- Analyzing building heating, ventilation, air conditioning
- Changing operating systems to optimize energy conservation
- Average energy savings of 25% per building





# Current Objectives and Projects

## Wind Energy Power Purchase Agreement (PPA) - 2016 – 2026

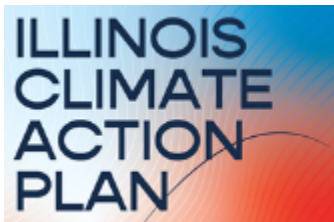
- Urbana campus purchases 25,000 MWh (5% of total annual electricity use)

## Illini Lights Out

- Student-led initiative to turn lights out around buildings on campus to conserve energy and support culture of sustainability

## Solar Energy

- Solar Farms 1.0 & 2.0 PPAs
- Solar Farm 3.0 planning
- Solar rooftop PVs



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# Future Objectives and Projects

Establishing stricter goals with improved accountability

- Ongoing project to create a plan for 100% clean energy transition
- Net zero carbon emissions by 2050

Green Labs Committee

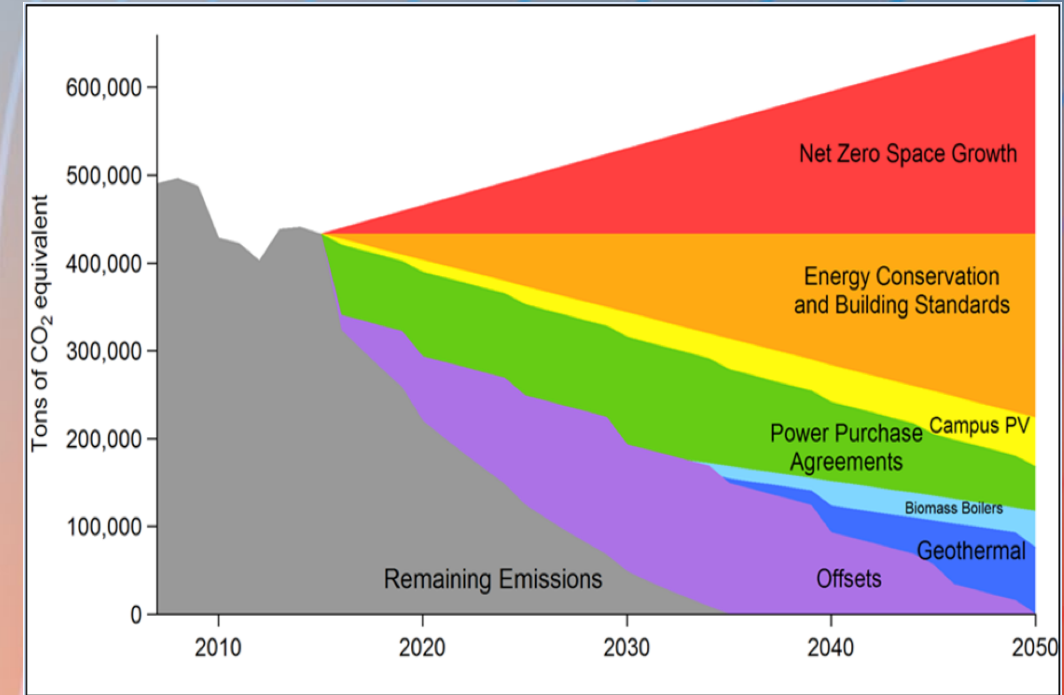
- Integrate iCAP objectives with research areas on campus

Upcoming iWG meeting to discuss Clean Energy Plans

- Propose various pathways for renewable energy

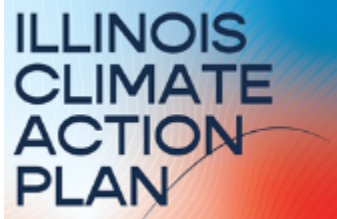
Proposal for energy efficient new buildings

- Net zero carbon emissions





# Transportation iCAP Team



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# Past Objectives and Projects

- Studies and surveys to assess transportation practices
- Collaboration with Champaign-Urbana Mass Transit District to:
  - Enhance mobility choices
  - Improve infrastructure
  - Promote sustainability
  - Improve connections between major urban centers
- Evaluated UIUC fleet vehicles to be replaced with EVs
- 2022 Mode Choice Survey
- Walkability Audit

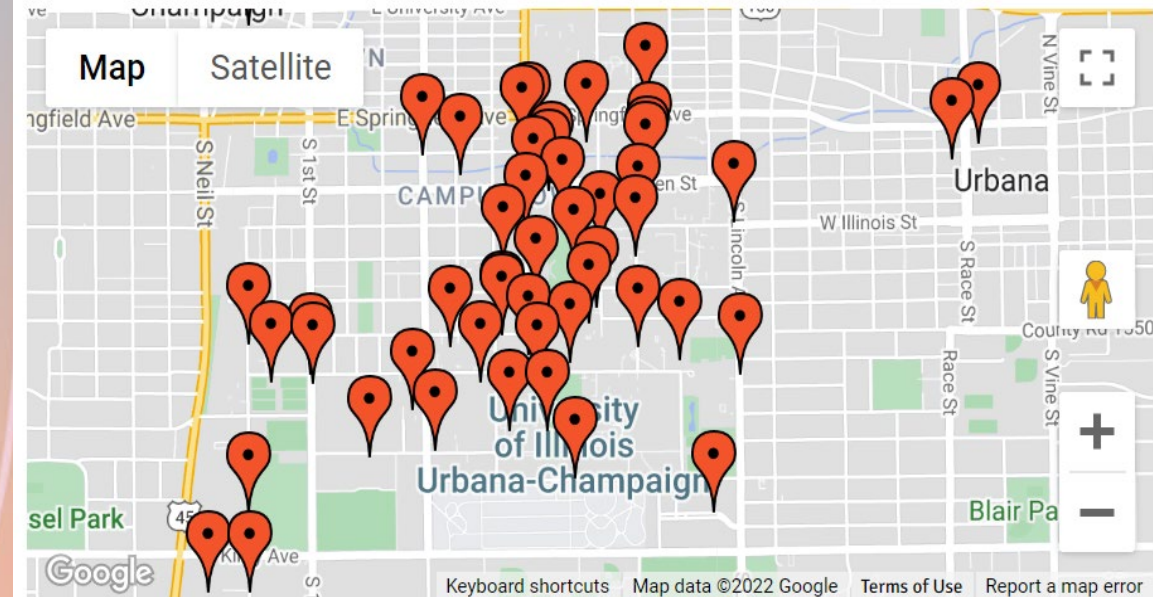




# Current Objectives and Projects

- Installing public use electric vehicle charging stations
  - 20 charging stations already installed
- Encouraging bicycle use and improving safety
  - Through education, infrastructure, and enforcement
- Decreasing fleet emissions
  - By incrementally replacing fleet with EVs and low emissions gas vehicles
- Sustainably managing university transportation systems
- Discussion with Prairie Research Institute and Public Safety about Fleet Replacement Plans

**Map of Transportation-themed Projects**



# Future Objectives and Projects

Goals (based on baseline FY08):

- Reduce net air travel emissions by 50% by FY24 and by 100% by FY30
- Establish telecommuting policies for campus by FY24





# We challenge you!

Bike to work or carpool with your coworkers once this week!



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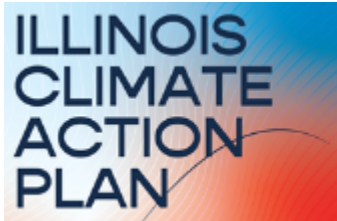


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# Land and Water iCAP Team



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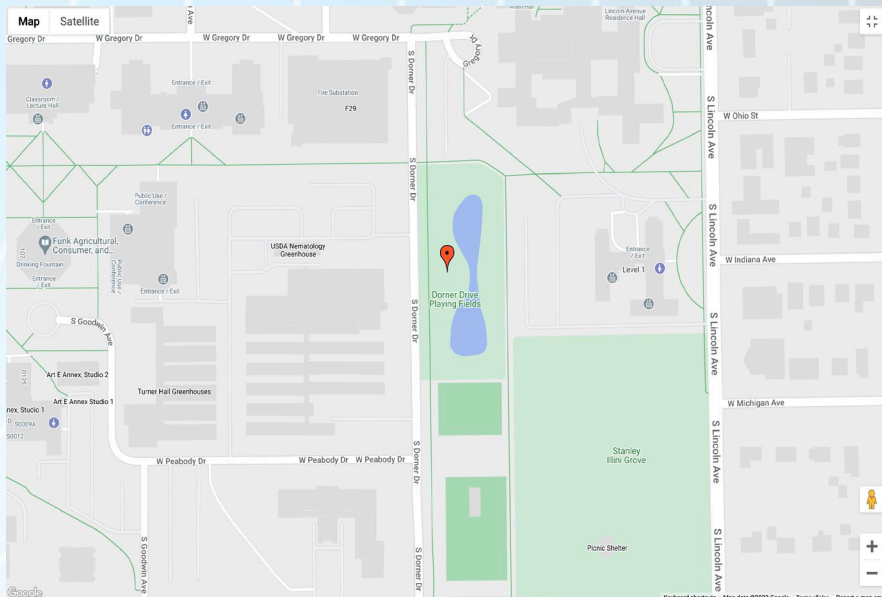


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# Past

- Low mow → installation of high quality native grassland plants
- Riparian habitat for wildlife



## DORNER DRIVE RETENTION POND Conceptual Design & Phases

**Phase 1:** Repair Retaining Wall – Fall/Winter 2020

**Phase 2:** Remove existing vegetation & Install seed mix(es) – Spring 2021

**Phase 3:** Install designed, specific plant plugs – Fall 2021

**Phase 4:** Maintain new established landscape – Spring 2020 forward

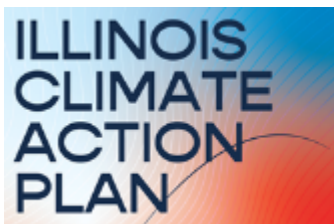
Approximate seeded area: 48,000 sq ft



Objective 4.2: Implement the Resilient Landscape Strategy recommendations by FY24



# Plantings at Dorner Drive Retention Pond



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# Present

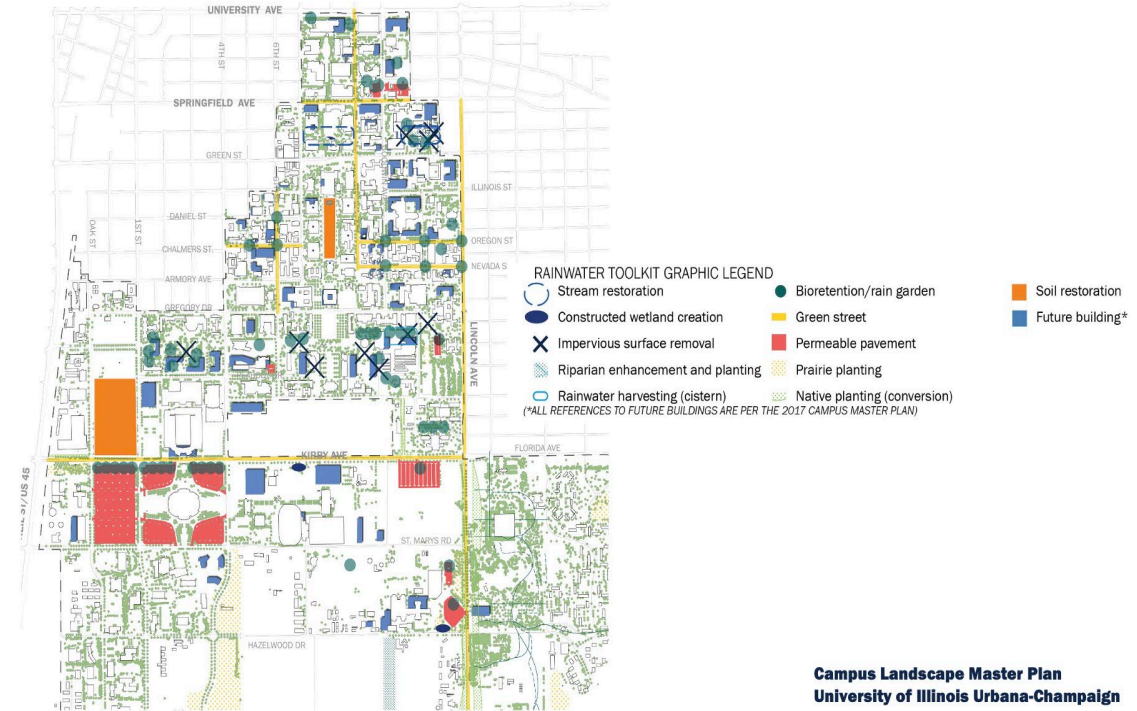
## Objective 4.2: Implement the Resilient Landscape Strategy recommendations by FY24

- 14 campus wide goals for campus landscape
- Aims to reflect our values as a University
- Focuses on Illinois' natural and cultural heritage

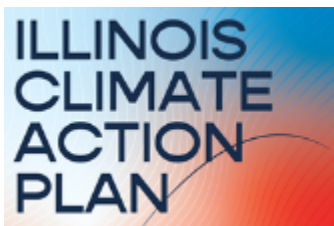
### CAMPUS WIDE GOALS

12 | HIGHLIGHT SUSTAINABILITY AS A CORE VALUE OF THE UNIVERSITY LANDSCAPE.

13 | BECOME A WORLD LEADER IN RAINWATER MANAGEMENT.



## Campus Landscape Master Plan



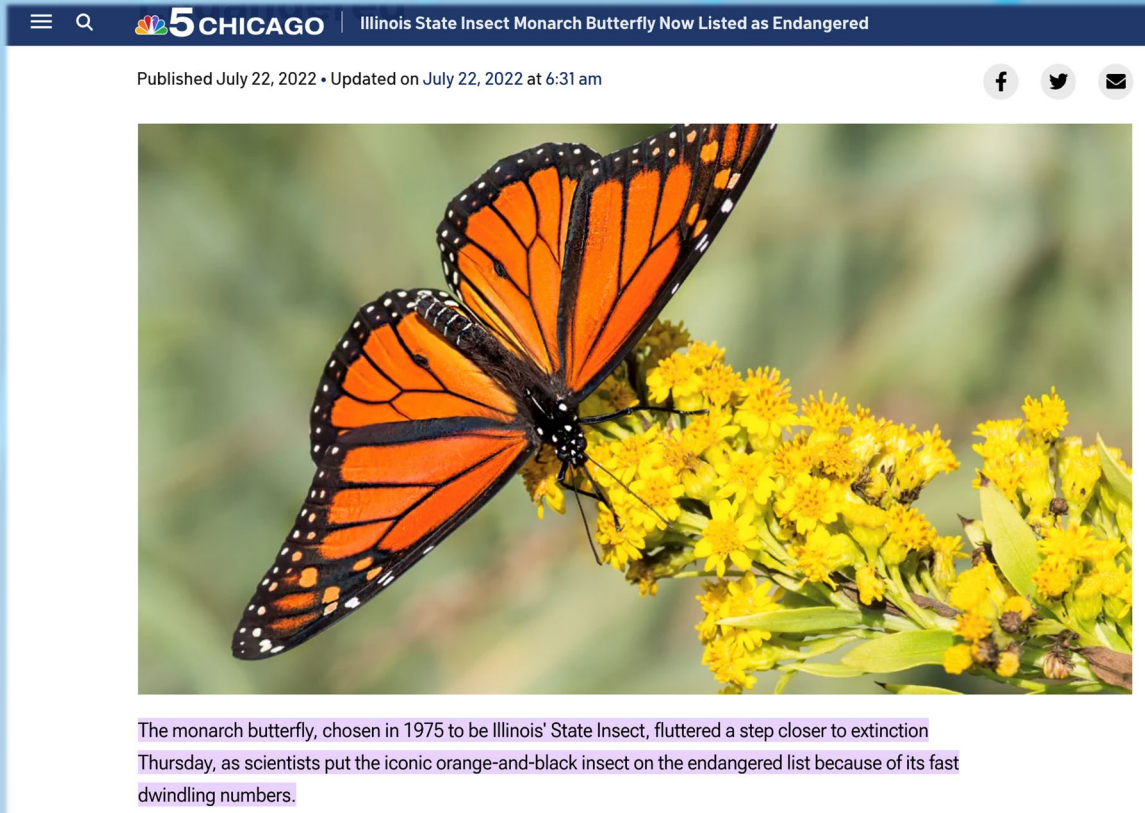
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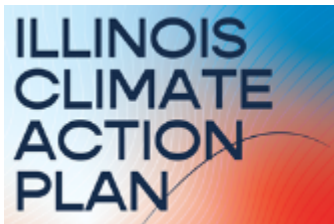
# Future



- Common milkweed plantings
- Sole food source and required host plant
- Objective 4.2.2: Increase the number of ground-level pollinator-friendly landscaping areas on campus by 50% from the FY19 baseline by April 2024.



## Monarchs Need Milkweed



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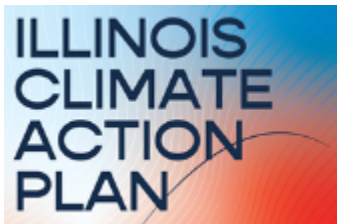


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# Reflections...

- We notice a few repeating objectives from these projects
- Based on this observation, we have worked and will continue to work on recommendations that target other objectives from the Land & Water iCAP chapter
- What to expect in the near and far future: soil quality sampling and reducing potable water use



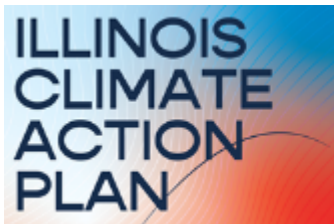
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# Zero Waste iCAP Team

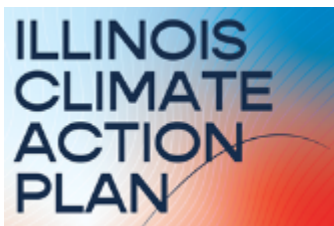
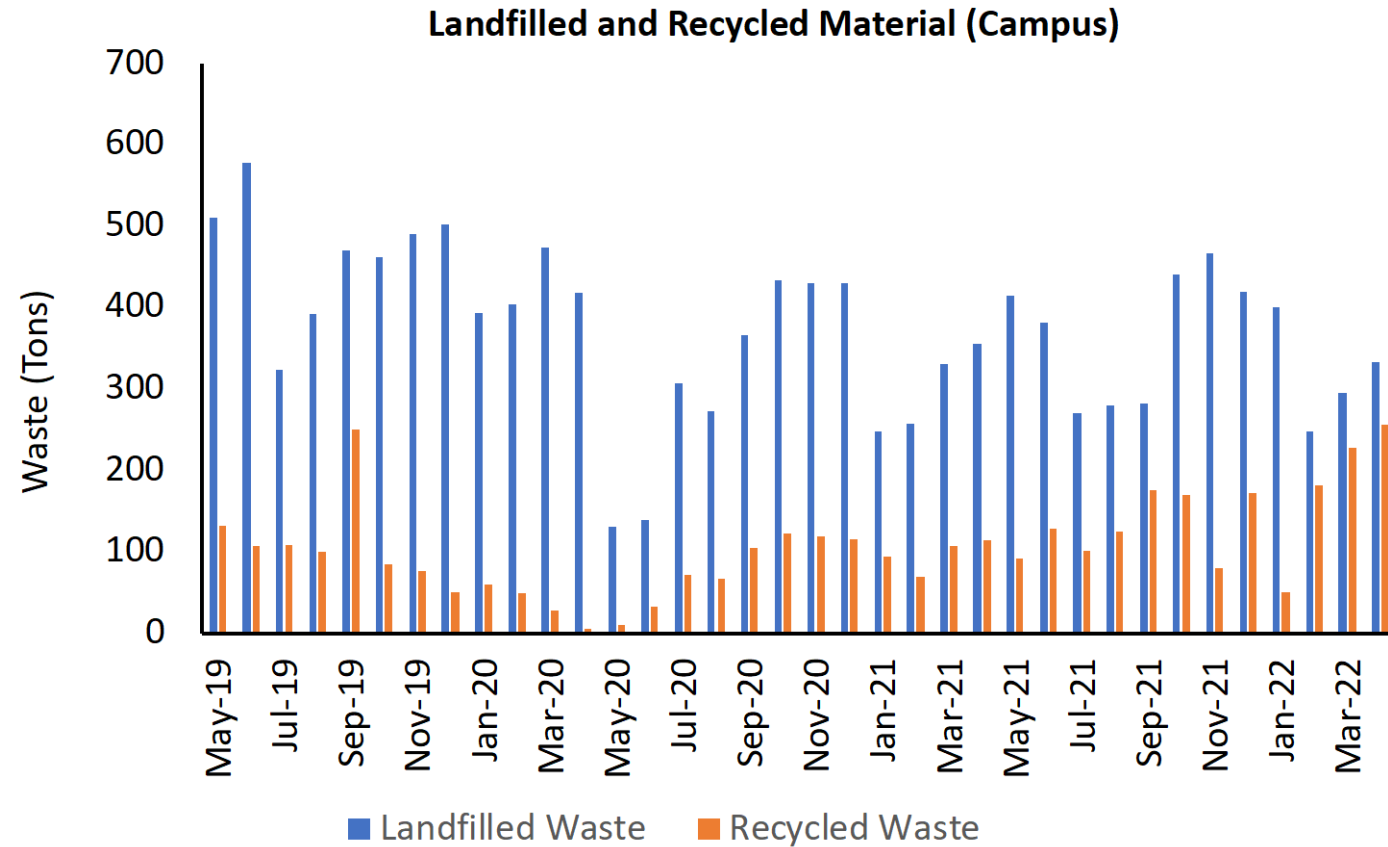
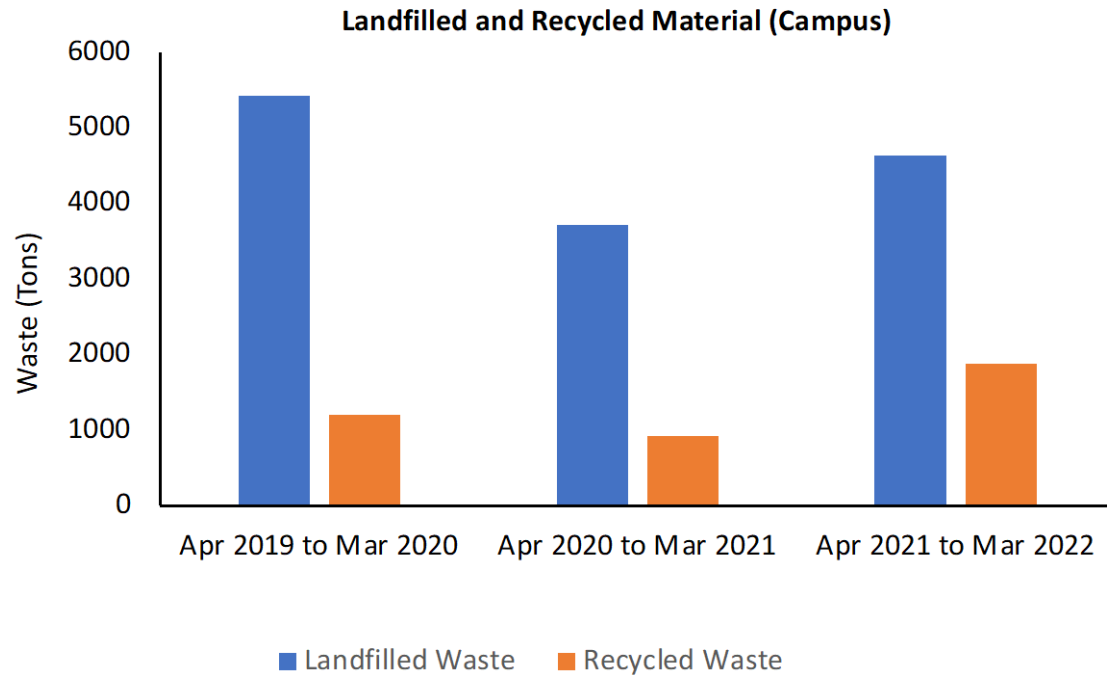


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# Municipal Solid Waste (MSW) Diversion Rate



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# Past Project

## Dining Services

## Reusable Containers



- Reduce food waste and single use materials through this pilot program
- Objective 5.4: Promote food scraps reduction on campus through a behavior change campaign, and tracking and recovery of surplus food for donation, with at least five new areas tracking and reporting their food waste by FY22.



- There are now more than 2,000 containers in use, and we are working on another recommendation to track this data more closely
- Program is now expanded to all 5 dining facilities!



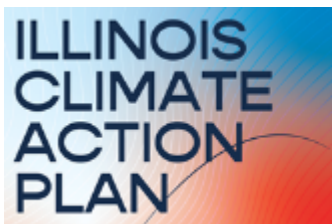
# Present Project

## Grind2Energy

- All residence halls are currently utilizing Grind2Energy systems
- Objective 5.2: Reduce the total campus waste going to landfills from 5,049 tons in FY19 to 4,544 tons or less in FY24, which is a decrease of at least 10%.
- Lincoln / Allen system Funded by Facilities & Services and iSEE Carbon Credit Sales Fund



1. The food waste goes through the grinder and becomes a "slurry."
2. The slurry is pumped into a 5000-6000 gallon holding tank right outside of the dining hall.
3. When the tank gets 80% full, a vendor is notified and the slurry is picked up from the holding tank by a liquid vacuum truck.
4. Once the slurry is dropped off at the Urbana Champaign Sanitary District, they put it in an anaerobic digester.
5. From there, they collect methane from the digester and produce electricity to run their plant.



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# Future Project

- Work with Athletics to establish Zero Waste practices at regular sporting events
- Provide a Zero Waste liaison to student athlete committees/clubs
- November 14: Zero Waste Basketball game before America Recycles Day
  - Objective 5.3: two major zero waste events
  - Setting the standard for future collaborations with IL Athletics



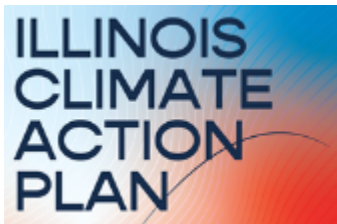
# Challenges...

Misconceptions about the waste stream

- Past messaging that F&S sorts all landfill waste; some people still hold this belief true today despite new awareness campaigns. Always use the recycling bin!

Many are still unaware of what is recyclable

Lack of awareness on the process of how the university recycles and where University waste goes



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# Education iCAP Team



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# Education Team Past Objectives and Projects

## Environmental Leadership Program

- Semester-long program focused on local and state government agencies
- Familiarize students on how to build movement momentum



## Comprehensive online repository for courses and academic programs with sustainability content

- Broad course list focusing on any aspect of sustainability for each semester
- Published at [iSEE website](https://www.isee.uiowa.edu/)





# Education Team Current Objectives and Projects

## Sustainability Gen-Ed option proposal

- Currently adds three-credit option to Natural Sciences & Technology requirement
- Develop similar option within social and behavioral sciences



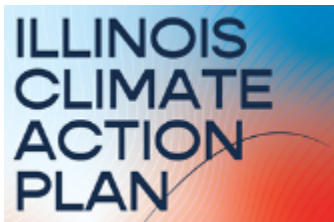
## Sustainability in Study Abroad project

- Implement sustainability across all study abroad curriculum
- Add specific learning objectives and goals for the existing study abroad programs



## Big Ten Green Career Fair

- iWG approved the recommendation and has transmitted it to Student Success, Inclusion & Belonging (SSIB)



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# Education Team Future Objectives and Projects

## Creating sustainability connections with the GIES College of Business

- Initial conversation with the college on business classes and programs related to sustainability
- Familiarize students on how to build movement momentum

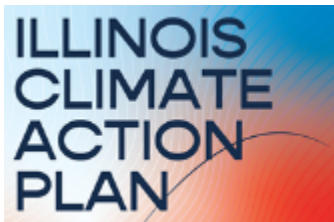


## Sustainability training

- Creation of a sustainability training program required for incoming undergraduates



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# WE HAVE A CHALLENGE FOR YOU!!!

**We are interested in what  
you are missing in  
your education regarding  
sustainability!!! :)**

**Scan the QR code and  
send us a short note!**



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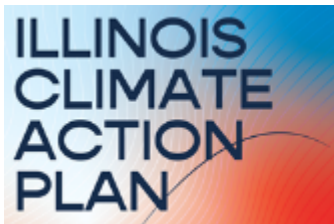


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# Engagement iCAP Team



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## ILLINOIS CLIMATE ACTION PLAN 2020

# ENGAGEMENT



"More students should care about sustainability because we are a part of the youth! The earth we have right now is the one we will always have!"



— *Samantha Roberson '22*

### WHERE WE'VE BEEN

- iSEE launched "Campus as a Living Laboratory" to engage researchers with iCAP objectives (2018)
- The 6th annual iSEE Congress, "Sustainability Justice," discussed environmental activism (2019)
- iSEE published the latest version of the Certified Green Office Program (2020)

### WHERE WE'RE GOING

- Join the Green Sports Alliance by FY21
- Increase certifications issued through the Certified Greener Campus Program 20% yearly from FY20-24
- Support youth sustainability programs

Presented by Sophie Fox, Mika Lew, and Claire Keating

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# Past Projects



- Promotes student engagement on campus-related sustainability efforts.
- Oversees other sustainability programs.

7.1: Increase the overall culture of sustainability on campus.



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# Current Projects

## Advertising Capstone Course (ADV 498)

Team is collaborating with ADV 498 class as an effort to increase student awareness about iSEE and its efforts.

Student teams create advertising material and resources for campus sustainability initiatives and sustainability engagement.

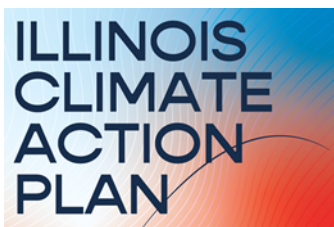
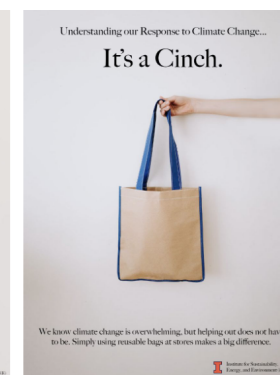
7.1 Enhance the overall culture of sustainability on campus

### Creative Concept

#### Simplify Climate Change

Show our understanding of how climate change is overwhelming and invite the audience in to learn by using a lighthearted idiom paired with a very simple visual.

This approach would reinforce how small, simple changes can make a big difference and iSEE is here to help everyone learn.



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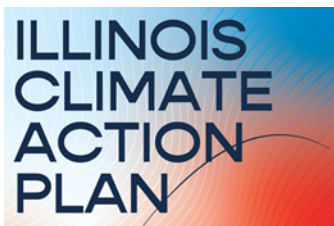
# Future Projects

## Green Sports Alliance—Sustainability in Athletics

Engagement Team recommends that the Division of Intercollegiate Athletes joins the Green Sports Alliance.

If completed, U of I Athletics (DIA) can be a leader in sustainability.

7.3: Increase visibility of sustainability efforts by joining the Green Sports Alliance.



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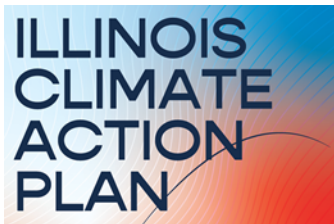


# Challenge...

The Engagement Team's overall mission is to increase student participation on sustainability efforts on Campus.

Thus, how can we foster a sustainability-minded community among all colleges under the University of Illinois?

Let's hear your thoughts!

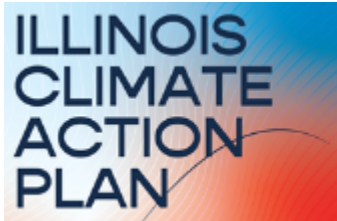


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# Resilience iCAP Team



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# Community Resilience: Success Stories

## Objective 8.6: Vision Zero

- Safe and sustainable transportation
- CUUATS group – passed a resolution in support of Vision Zero for Champaign County
- First Street bike path links Savoy to campus

## Objective 8.5: Inventory Green Jobs Certificates

- Green jobs certifications listed on iSEE's Education Portal

<https://sustainability.illinois.edu/education/student-resources/>



# Community Resilience: Current Projects

## Urbana led Geothermal and Solar Urbana-Champaign

*(These 2022 programs close 10/31.)*

- Making the switch to geothermal easier and more affordable. 28 systems; 118 tons of capacity.
- Broadening local solar PV development: 302 systems; 2,635 kw solar capacity since 2016!

<https://urbanailinois.us/geothermal> and <https://www.growsolar.org/solar-urbana-champaign/>

## Objective 8.1: Urban Biodiversity Plan

- A project that looks at existing biodiversity throughout our urban area to create strategies to preserve and enhance biodiversity for environmental, local health, and wellbeing. Support from UI Extension; August 2023 expected completion





# Community Resilience: For the Future

## Coordinated Rainwater Management: Objective 8.2

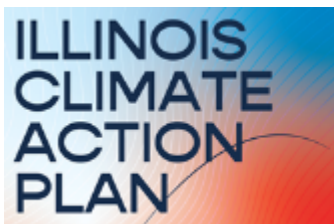
- UI Extension, NCSA, and the Great Lakes to Gulf Project is working on listing green infrastructure projects and best management practices state-wide. Campus and our metro area can connect here! <https://greatlakestogulf.org/>

## Champaign County Sustainability Network (CCNet)

- Mission: enable a knowledgeable, inclusive community through voluntary group discussion activities
- Position Champaign County as a sustainability leader

### CHALLENGE:

Get involved and volunteer in local sustainability organizations such as *CCNet, Park Districts, Grant Prairie Friends, Prairie Rives Network, & more!*



**Institute for Sustainability,  
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# Student Sustainability Committee





# Student Sustainability Leadership Council





# **Thank you!!**

**We will see you in the lobby/atrium for refreshments and discussion.**