

Contact: John Nash

FY 2022 CAMPUS SUSTAINABILITY REPORT

Action Requested: Receive the report.

Executive Summary: To evaluate and measure campus sustainability, the universities participate in an AASHE, Association for the Advancement of Sustainability in Higher Education, program called “STARS.” STARS stands for Sustainability, Tracking, Assessment and Rating System.

In this report, the universities highlight at least one project from each of the following STARS categories:

1. Academics and Research
2. Campus Operations
3. Planning, Administration and Engagement

Iowa’s public universities are committed to a sustainable future through academics and research, operations and economic development. Respect for the impact on the environment is part of decision-making at all levels. Regent institutions broadly apply campus sustainability in the general operations of each institution, in curriculum and in experiences of students and employees. Sustainability is also utilized effectively when partnering with industry leaders, joining with all levels of government and transferring technology within the institutions.

Board of Regents’ Sustainability websites:

UI Office of Sustainability - <http://sustainability.uiowa.edu/>

ISU Office of Sustainability - <http://www.livegreen.iastate.edu/>

UNI Office of Sustainability - <http://www.uni.edu/sustainability>

Part 1 of 3
ACADEMICS AND RESEARCH

A primary function of colleges and universities is to educate students. By training and educating future leaders, scholars, workers and professionals, higher education institutions are uniquely positioned to prepare students to understand and address sustainability challenges. This STARS category recognizes institutions that have formal education programs and courses, as well as sustainability learning experiences outside the formal curriculum.

University of Iowa

The Ashton Research Prairie: A living classroom and lab



University of Iowa, west campus

The Ashton Research Prairie (ARP) is located at the site of the Ashton Cross Country Course on the University of Iowa campus. While ARP is the result of a collaborative effort between the Office of Sustainability and the Environment (OSE), Iowa Athletics, environmental sciences units and several faculty from across the College of Liberal Arts and Sciences and the College of Engineering, the idea began with the vision of a determined Environmental Science major, Megan

Leness. In 2018, Megan approached OSE, Professor of Biology [Andrew Forbes](#), and Earth and Environmental Sciences instructor Mike Fallon asked how the UI could restore a prairie on campus. After many conversations, the Athletics groundskeeper, Tony Senio, championed the idea in his department. Athletics provided the space for a future prairie, and the idea took root.

This cross-campus effort is part of a broader vision detailed in the [2030 sustainability goals](#) for the university to create living laboratories across campus in order to increase opportunities for students and researchers to use the UI campus as an educational and research laboratory for the simultaneous improvement of campus sustainability and ecosystems. Several courses at the university currently use the prairie to teach or have plans to conduct research or applied coursework at the prairie in the spring semester.

As the [Prairie Restoration Project](#) continues to grow, we encourage faculty, staff and students who may want to engage with ARP in their courses, conduct research, visit the prairie, or volunteer to [reach out to the Office of Sustainability and the Environment](#). It is hoped that this project, along with other planned living laboratories across campus, will enrich the opportunities of the campus community by offering applied opportunities for research and discovery.

Background: Until the early 1840's, the entirety of Iowa was blanketed in grasses and wildflowers, a landscape known as the Tallgrass Prairie. This vast expanse of wildflowers and grasses up to 12 feet tall was home to indigenous peoples and astonishingly diverse wildlife.

The once rich and nutrient-dense soil became over-exploited, through a combination of poor farming methods and industrialized agricultural practices. Today, less than 0.01% of native Tallgrass Prairie remains in Iowa. As a public institution serving the greater good, the UI is beginning to face the task of reversing the centuries-long degradation of vital natural resources. The Prairie Reconstruction Project at Ashton Cross Country Course is essential to this effort, providing hands-on educational experiences for students, while preserving a rare native Iowa landscape.

Reconstruction to Date: Phase I of the Prairie Reconstruction Project involves the conversion of a one-acre plot of unused fallow pasture land to a native prairie. Prairie plant seed used in the reconstruction is biogeographically referenced, assuring that it is native to Johnson County, Iowa.

Planned Prairie Reconstruction for 2021: During the current academic year, the UI will expand the current prairie by six acres, using \$7,500 in financial support from an EPA Farmer-to-Farmer Cooperative Agreement grant, whose PI is [Professor Craig Just](#) of the College of Engineering, who teaches in the Environmental Science Program in CLAS. Dr. Just's grant is focused on improvements in water quality, habitat and environmental education.

Partners: Special thanks to the UI Department of Athletics for permission to reconstruct ARP at the Ashton Cross Country Course. UI Student Government provided a \$1,500 grant, used to purchase native plant seed for this reconstruction, for which there is deep gratitude. Finally, thanks to the Iowa Native Plant Society for awarding \$500 to help design and manufacture educational signage.

University of Northern Iowa

The Department of Earth and Environmental Sciences at UNI has led efforts in both academics and research through its work in the Dry Run Creek Watershed. Many undergraduate students find a large gap between their classroom learning and real life career preparation in the environmental arena. However, real life watersheds are too big and complex for them to tackle in

a hands on manner in the classroom. Because of this, the department has installed 11 experiential learning sites within the Dry Run Creek (DRC) watershed to develop activity based hydrology curriculum.



All selected sites in the watershed are either within walking distance or a short trip away from Latham Hall where the Department of Earth and Environmental Sciences is housed. The DRC watershed is divided into a rural part and a semi-urban area. The relatively smaller size of the system makes it highly sensitive to episodic storm events. Apart from the avenues of surface runoff a large number of subsurface drainage tiles are existing in the area. The rural part of the watershed receives a considerable amount of fertilizers and pesticides during the growing season. Additionally, the creek receives all sorts of urban runoff, including some industrial

wastes. The University has a constructed wetland system for educational purposes. All of the above characteristics make the DRC an excellent resource for student learning as well as curricular innovations. The Department of Earth and Environmental Sciences hydrology program has four courses devoted to water quality education of UNI students, namely (1) Hydrogeology, (2) Environmental Hydrology, (3) Field and Lab Methods in Hydrology and (4) Hydrology Seminar. These classes are taken by students from multiple departments in the sciences as well as the Geography department. Over the years, hundreds of students participated in DRC field projects on numerous topics, including surface runoff, stream discharge, nutrient flux, sediment loss and flood responses. In addition to the main drainage channels, students also conducted projects in watershed lakes, ponds, prairies and wetlands to understand the area's water environment.

This 'living laboratory' that includes 11 sites in the DRC watershed helps to bridge the gap and give students an opportunity to gain necessary skills preparing them to address real world problems. As demonstrated in this picture of University Branch of DRC, north of Dancer Hall, students work as teams and learn procedures to collect and analyze water samples for major ion and sediment chemistry. They go from one site to the next to conduct activities relating to stream cross sections and rating curves and gain knowledge on flood analysis. Additionally, students learn mass calculations of nutrients to understand how land use practices negatively impact water quality. Classes conduct on-site discussion on spatial and temporal changes in hydrologic characteristics of the watershed. For both science and non-science majors, this kind of field training is essential before they can successfully conduct professional projects.



Undergraduate students from hydrology courses are directly involved in field activities in two primary categories.

Stream gaging: Students carry portable sensors to the sites to measure water depth and velocity. These sensors send a sonar signal to measure the distance from the water surface to the sensor. Additionally, students enter the stream in groups and physically measure channel cross sections at each site along with temporal variations in velocities, as demonstrated by students taking measurements on the main branch of DRC on the south side of campus. This data is used to develop flood rating curves at these sites. After collecting the discharge data, students continue their team work at the site through calculation of sediment transport and nutrient flux.

Water and sediment analysis: Student teams visit each site to collect water and sediment samples and chemically analyze them for the below analytes. Based on the analytical results, they calculate water quality index (WQI) of each site.

Water Quality Analytes Tested		
Biochemical oxygen demand	<i>E. coli</i>	Temperature
Chloride	Nutrients	Total dissolved solids
Conductivity	pH	Total suspended solids
Dissolved oxygen	Sulfate	Turbidity

The Department of Earth and Environmental Sciences routinely uploads data collected from the DRC watershed as well as other projects to their hydrology website for public viewing (<http://uni.edu/hydrology>). Additionally available is real time data from an on campus water monitoring well.

Iowa State University

Reinventing Pandemic Plexiglass
Over the past year, Plexiglass barriers have populated campuses and communities across the world. As much as Plexiglass has served a vital role in allowing the continuation of business functions and protecting individuals amid a global pandemic, end-of-use management post-pandemic is quickly coming into focus on the immediate horizon. Without viable recycling solutions for Plexiglass being available, creative diversion options are of vital and timely consideration for colleges and universities.



At Iowa State University, hundreds of Plexiglass barriers have been added to campus buildings; many more can be found in off-campus and statewide facilities. Although some barriers may remain in place to aid in building operations and traffic flow, the majority of Plexiglass products appear dumpster bound - likely in a matter of months. Through a unique immersive education and research opportunity, industrial design students, in collaboration with university staff and the [Iowa](#)

[Department of Natural Resource's Iowa Waste Exchange Program](#), are addressing beneficial use solutions.

Over the course of two academic years, students of Daniel Neubauer, Assistant Teaching Professor in Industrial Design, are defining the future of Plexiglass waste at Iowa State University. Through the course, "Design for Social Impact", students are completing all the research, concepts, fabrication, user feedback and refinement of durable products that serve a viable function for university students, faculty and staff, as well as being transferable beyond the campus community. Addressing ideas and opportunities through a functional lens, students are also tasked with interweaving environmental, economic and social sustainability within their concepts (see example below).



Student visions and solutions in turning a waste disposal challenge into beneficial use deliverables have been thoughtful and innovative, addressing literacy, teamwork, wayfinding, health and wellbeing and preservation. Prototypes include portable white boards and standing desks, organizational desk aids, museum display cases, venue signage and wayfinding resources, large-scale interactive art installations and class rings for students not able to gather for an in-person commencement ceremony last year.

The global pandemic has required new and different products and processes for colleges, universities and communities. As we approach more normal times, the opportunity to collaborate proactively and creatively, as well as offer students a uniquely relevant immersive living laboratory experience, cultivates reconnection and enhances a healing effect for campus communities.

Part 2 of 3
CAMPUS OPERATIONS

This STARS category encompasses everything within the daily operation of a campus. It includes quantitative data reporting in the areas of Building Operations, Climate, Dining Services, Energy, Grounds, Purchasing, Transportation, Waste and Water Usage. This overarching category notes that institutions can design, build and maintain a campus in ways that provide a safe and healthy environment for the campus community. It recognizes the outstanding efforts to maintain a more sustainable campus environment.

University of Northern Iowa

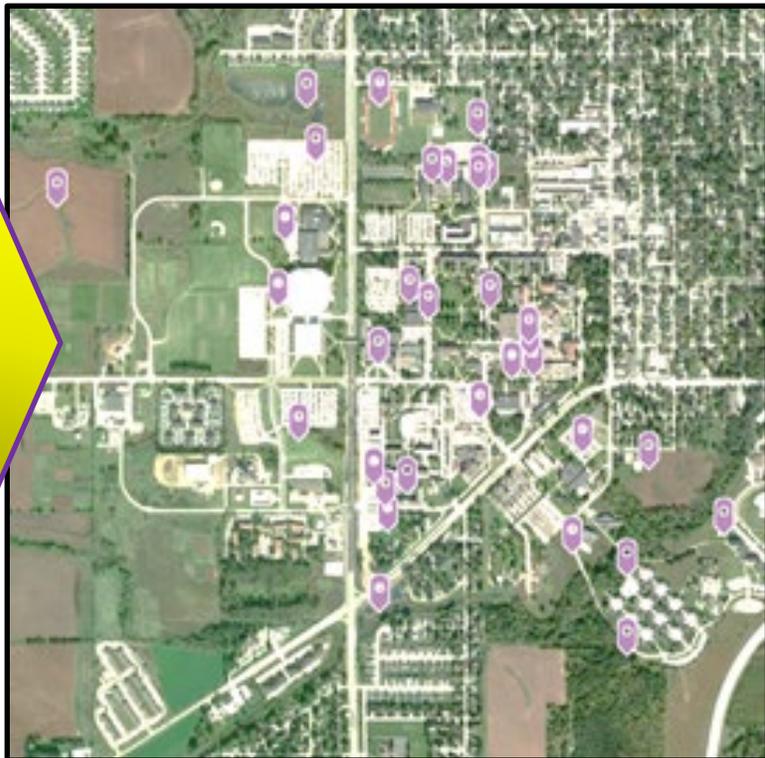
UNI's physical campus sits between two branches of Dry Run Creek. These two branches are both currently listed as "impaired" by the Department of Natural Resources. The University is committed to improve these branches of Dry Run Creek and the watershed as a whole through the implementation of Storm Water Best Management Practices (BMP) on campus infrastructure projects. UNI has worked for more than a decade in conjunction with Black Hawk Soil and Water Conservation District and the Dry Run Creek Watershed project to install stormwater BMPs as a part of their larger watershed plan. The below map shows locations of BMP installations that have occurred across the UNI campus in an effort to minimize our impact on water quality and improve water quantity in the greater Cedar Valley.

In this figure, each marker represents the location of 33 unique BMPs including:

- 2 wetlands
- 13 acres of soil quality restoration
- 4,220 linear feet of stream stabilization
- 4 green roofs
- 35,000 sq. ft. porous asphalt
- 38,700 sq. ft. of bioretention cells
- Over 100 acres of naturalized areas including restored prairie

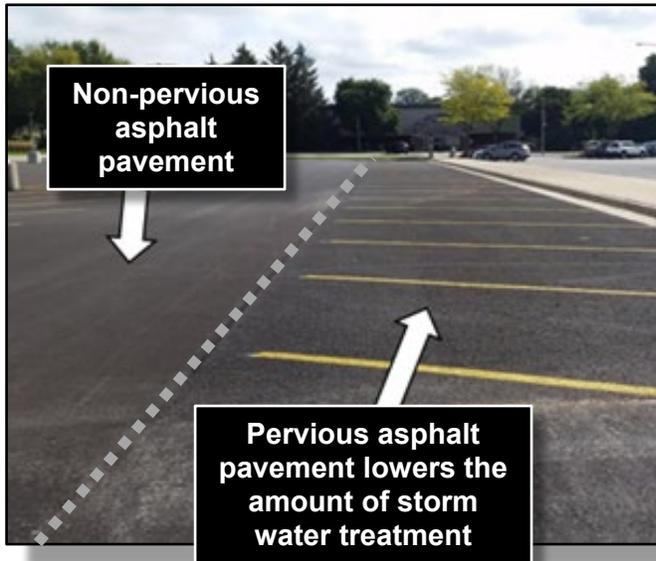
In total, these practices equate to over 61 million gallons of stormwater treated annually.

A specific area of focus in UNI's efforts to positively impact water quality includes stopping stormwater runoff from parking lots and other impervious surfaces where water cannot soak into the ground. Numerous practices have been employed to capture and treat water from campus parking lots. These include things such as bioretention cells and bioswales, pervious pavers and more recently pervious asphalt.



One of the newest examples is the recently repaved Gilchrist Hall parking lot. This project

provided the opportunity to incorporate pervious asphalt on an otherwise impervious area on campus. While the pervious asphalt looks like standard asphalt, it is different as it allows water to penetrate and slowly infiltrate rather than running into the storm drains. The pervious portion of the asphalt is implemented underneath the vehicle parking space, highlighted in the picture of the parking lot after completion. The estimated volume of storm water treated on this parking lot alone annually is 703,743 gallons. This application of pervious asphalt alone also helps to treat an estimated 57,762 square feet of impervious surface.



A comprehensive description of BMPs implemented on campus can be found at <https://fm.uni.edu/stormwater-management> under “GIS Story Map”.

Iowa State University
Operating for a Sustainable Future

Since the start of the Live Green! Initiative in 2008, Iowa State University has successfully focused on engaging students, faculty and staff in a sustainable future. Recognition of these efforts has been noted through designations including three AASHE STARS gold certifications (2013, 2016 and 2019), [Princeton Review's Green Honor Roll](#) and [Best College Reviews' 25 Best Green Colleges](#).

The decade since the start of Live Green! saw a growing awareness of and interest in climate change and the need to reduce greenhouse gas emissions from students, faculty and staff. Proactive engagement, especially notable through the passage of climate resolutions by both the Faculty Senate and Student Government, provided a call to action to the university to commit to reducing carbon emissions by increasing the use of reduced or no



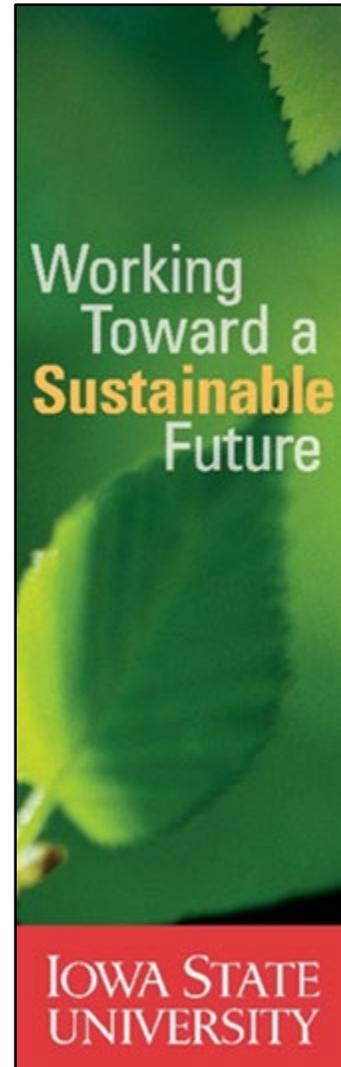
carbon fuel sources and reducing energy consumption through increased efficiency. Alongside this campus awareness and engagement, the Advisory Committee on Sustainability developed and gathered feedback from the campus community on a Sustainability Plan for Operations.

In early 2020, President Wintersteen established a new university committee to improve sustainability at Iowa State. The [University Sustainability Committee](#) was charged with developing a set of actionable recommendations to increase energy efficiency, energy conservation and use of renewable energy with the goal of moving Iowa State toward carbon neutrality.

The first recommendation from the committee was the 2021-2025 Strategic Plan for Sustainability in Operations. This plan was endorsed by President Wendy Wintersteen in October 2020, during [Campus Sustainability Month](#).

The five-year plan identifies overarching strategies through 2025 that reduce the impact of campus operations on the environment. The plan outlines objectives in five areas: energy use and emissions, building operations and maintenance, waste reduction and recycling, grounds maintenance and water use. With focus on a minimal cost impact to the university, results achievable by 2025 include:

- Reducing greenhouse gas emissions by 50% through the conversion of the last two coal-fired boilers to natural gas, making Iowa State a coal-free campus. Estimated fuel and operational savings will pay back the project cost in four years.
- Tripling the use of renewable energy, through participation in the City of Ames Community Solar Farm and the purchase of renewable energy credits for all non-renewable, purchased electricity consumed on the Iowa State University campus.
- Reducing annual building energy consumption by 5% from a 2012 baseline through enhanced policy and operational changes and continued commitment to energy-efficient design and construction.
- Completing the development of university-wide plans and procedures to improve the sustainability of day-to-day operations and maintenance of campus facilities within the areas of building operations and maintenance, waste and recycling, water use and grounds.



University of Iowa

More Than Just a Garden

The University of Iowa sits on 1,900 acres of land that includes 373 buildings, 8,000 trees, 50+ miles of sidewalks and bike paths and 34+ miles of roads and drives. Outside of its people, the UI's greatest asset and resource is its campus, which is directly tied to everything from mental and social health, to recruitment and graduation rates, campus identity, environmental stewardship, campus safety and even fundraising.



While traditional classrooms, labs and other indoor learning spaces are essential to the teaching and research mission of the University, outdoor space can have an equal, if not greater role in creating an optimal learning environment.

There is mounting research that shows the quality of the environment you spend your time in directly impacts your attention span, stress level, memory function, cognitive development, mood, risk of psychiatric disorders, patient healing outcomes and happiness, among other things. In general, spending time in environments that mimic the natural world improves both physical and psychological well-being, while indoor environments or poor-quality outdoor environments can be detrimental.

The Office of Sustainability and the Environment is working closely with students, faculty and staff to enhance and expand these outdoor spaces and utilize the campus as a Living Laboratory. Over the last few years, UI Landscape Services has been installing pollinator gardens and rain gardens on campus, with assistance from faculty and students. The gardens beautify campus while also providing important ecological services as well as research and education opportunities. Current garden locations include:

- Pollinator gardens: North Hall, IMU foot bridge, IMU (west side), Carver Biomedical Research Building, Lagoon Shelter House (installation planned for May 2021).
- Rain gardens: Oberman House, Dey House, Shambaugh House, Stuit Hall, Quad Ravine, bike trail near Finkbine Golf Course parking (installed April 2021)



In addition to the aesthetic and environmental benefits of pollinator and rain gardens, they provide research and educational opportunities for students and faculty. In spring 2021, students from a Civil and Environmental Engineering course (CEE:4107 Sustainable Systems) collaborated with UI Landscape Services staff to plan and install a rain garden that captures storm

water from the Finkbine Golf Course parking area. Part of the course project included measuring water flow to determine the water capacity of the garden during a heavy rain event.

Through this class project, the garden installation provided an experiential learning opportunity for the students, it also improved the aesthetics of the space, created a catchment and filtration system to manage stormwater more effectively, enhanced safety by reducing the pooling of water on the nearby sidewalk, and offers native habitat to increase ecological biodiversity.

From conducting pollinator counts, to measuring carbon sequestration rates of plant root systems, to assessing the health impacts of outdoor space enhancements, these gardens can continue to be utilized as Living Laboratories where faculty and students conduct on-campus research. Understanding the value these outdoor spaces contribute to the campus learning environment, the University plans to install at least one pollinator garden and one rain garden on campus each year for the foreseeable future.



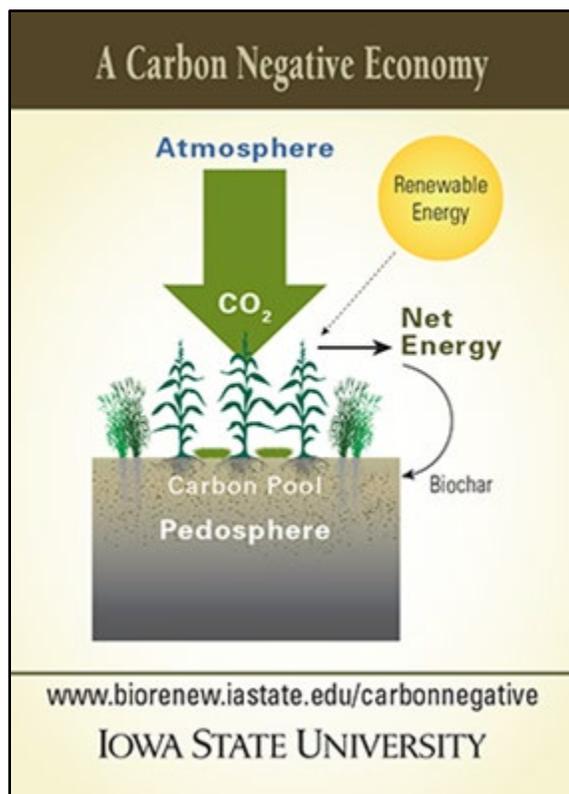
Part 3 of 3
PLANNING, ADMINISTRATION AND ENGAGEMENT

This STARS category encompasses a wide variety of planning, engagement and outreach areas. It includes quantitative and qualitative data reporting in the areas of Coordination and Planning, Diversity and Affordability, Human Resources, Investment and Public Engagement. This overarching category notes that institutions of higher learning can make significant contributions to sustainability throughout society by sharing their experiences and expertise with others. Sharing best practices and lessons learned can help other institutions, communities and individuals realize efficiencies that they otherwise may not have considered.

Iowa State University

Collaborating for Carbon Removal

In the late fall of 2019, staff of the [ISU Bioeconomy Institute \(BEI\)](#) noticed an opportunity across campus to increase understanding, research and collaboration within the campus community for opportunities to use agriculture to help mitigate climate change. This is a relevant area of focus for a land grant university and specifically important for Iowa.



Team members began connections and dialogue with university administration, as well as leaders across campus within all disciplines, to both inform others about the research work of the Institute and strategize collaborative opportunities. Encouraged by the synergistic connections that already existed, a collective initiative began to create an open dialogue with students, faculty and concerned citizens to harness knowledge toward developing an action-based, campus-wide plan to include agriculturally-based carbon removal in the research, education and extension missions of the university.

With considerations of COVID-19 safety precautions, an in-person forum scheduled for the 2020 spring semester was rescheduled and hosted virtually in 2021. Despite the delay, the forum had over 350 participants and sparked collective enthusiasm from students, faculty and staff for campus carbon collaboration.

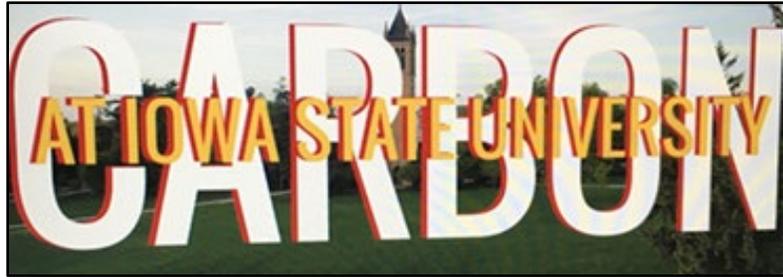
In pursuing next steps, BEI is partnering with the Colleges of Agriculture and Life Sciences,

Engineering and Liberal Arts and Sciences, as well as local, state and national agencies, organizations and companies to offer the following deliverables:

- Statewide Carbon Assessment, an overarching and in-depth research and reporting collective of Iowa's carbon sources, challenges and opportunities.
- Conversations about Carbon, a biweekly virtual lunch hour discussion with an expert addressing key questions about carbon reduction, removal and repair (Spring 2021).

- BeingCHANGE/SeeingCHANGE Lecture and Leadership Workshop, a connection and strategizing opportunity assessing campus-wide actions and potential toward carbon reduction and removal (Fall 2021).
- C-CHANGE and CyBound Scholars Internship Programs, an education, engagement and empowerment opportunity for students across the U.S. and around the world to focus on carbon reduction and mitigation (Summer 2021-2025).

There is substantial research, extensive collaboration and widespread knowledge to be shared toward ensuring a sustainable and carbon mitigated future. Through the leadership, creativity and collaborative spirit of the Bioeconomy Institute, Iowa State University is leading the way to make it happen.



University of Iowa

One Sustainable Iowa Symposium March 31, 2021 through April 30, 2021

History: In 2017, students and staff at Iowa State University (ISU) began exploring how to celebrate their sustainability program's upcoming 10-year anniversary. As plans started coming together for monthly themes and events, they soon decided to further honor their decennial anniversary by hosting a sustainability conference for student leaders that was hosted by student leaders. Their goal was to connect students throughout Iowa (the Network) who had interests in sustainability and help those students build lasting relationships with each other. In the fall of 2017, ISU began gauging interest from other Iowa colleges and universities to attend the conference.

The University of Northern Iowa (UNI) quickly expressed interest and excitement in the conference. As ISU and UNI continued to collaborate, there was growing interest in expanding this beyond a one-time celebration. Pending a successful inaugural conference and support from conference attendees, UNI volunteered to turn it into an annual event by hosting the second conference.

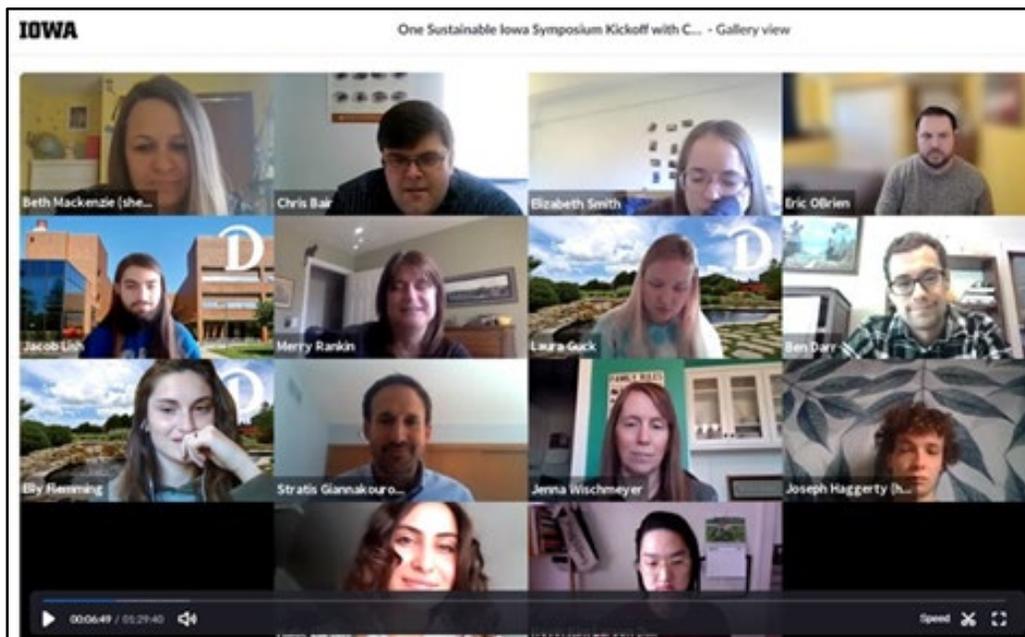
The first conference was held at ISU in the spring of 2019 and was indeed a success. Eighty-one students, staff and faculty attended from 11 schools across the state of Iowa. Attendees were excited for an opportunity to connect with peers from other schools and didn't want those connections to end after the conference. They were supportive of building on the conference to create a sustainability network across Iowa. To help facilitate sharing and collaboration, a shared Google Drive and Facebook group were created. The group decided that a different college or university should host the event every year, in order to highlight the sustainability initiatives at each college or university across the state. As the inaugural event was a success, the second conference was hosted at UNI in March 2020 just before the COVID-19 pandemic would shut everything down for the remainder of that year.

After the second conference, the momentum continued and the University of Iowa offered to host the next student conference in Spring 2021. However, due to health and safety concerns related to COVID-19, representatives from UI, ISU and UNI decided to postpone the 2021 in-person, on campus conference until 2022.

One Sustainable Iowa as a Student-Led Conference - The COVID-19 Pandemic and the Earth Month Symposium

While the in-person conference for 2021 has been postponed, this created an opportunity to explore alternative virtual programming in collaboration with all Iowa colleges and universities. Students and staff decided that expanding the event into virtual events in 2021 could also set the stage for continued virtual events even after the in-person conference resumes. In-person events offer a unique atmosphere for networking and collaboration and gives students an opportunity to explore sustainability initiatives on campuses across Iowa. The Network is excited to host the next in-person event in 2022. However, the benefits of virtual programming are worth noting, such as reducing the environmental impact of events through reduced travel, reducing cost barriers for attendance, reducing time commitments and class conflicts and broadening the audience. Future conferences will be rotated between schools in the One Sustainable Iowa Network and will continue to be student-led and student-centered.

The UI Office of Sustainability and the Environment (UI OSE) was excited to see how the One Sustainable Iowa Network has grown over the last three years and hoped to host a Symposium for the 2021 session, so that participants could connect and collaborate with other sustainability leaders across Iowa. With the intent to connect students, faculty and staff from colleges and universities across Iowa, the UI OSE hosted a virtual, one-month long symposium for students to practice virtual networking and skill building to tackle sustainability issues on their campuses and beyond. Anyone affiliated with higher education in the state of Iowa was welcomed, invited and encouraged to host and/or attend the 2021 Earth Month Symposium events.



In Fall, 2020 the UI OSE coordinated a planning committee for the 2021 Virtual Earth Month Symposium that consisted of representatives from Sustainability teams at colleges and universities across Iowa. It was decided by this group that, in order to host and promote the virtual

symposium, a third-party independent website should be created to host the Network and information and serve as a repository for the historical information and 2021 Earth Month Symposium event details. The UI OSE team created a website for this: www.onesustainableiowa.com. This website will serve as a resource for future One Sustainable Iowa symposium events and any other Network information, events and organizing details. We also foresee using this site as a resource for communicating about regional and national conferences as well.

The organizing committee decided to host the Virtual Symposium over Earth Month - April, 2021. There were numerous reasons this month was chosen, namely that most of the institutions were planning events that would fit with the Symposium during that month. The organizing committee decided the only limitation for events to be included in the Earth Month Symposium were the following:

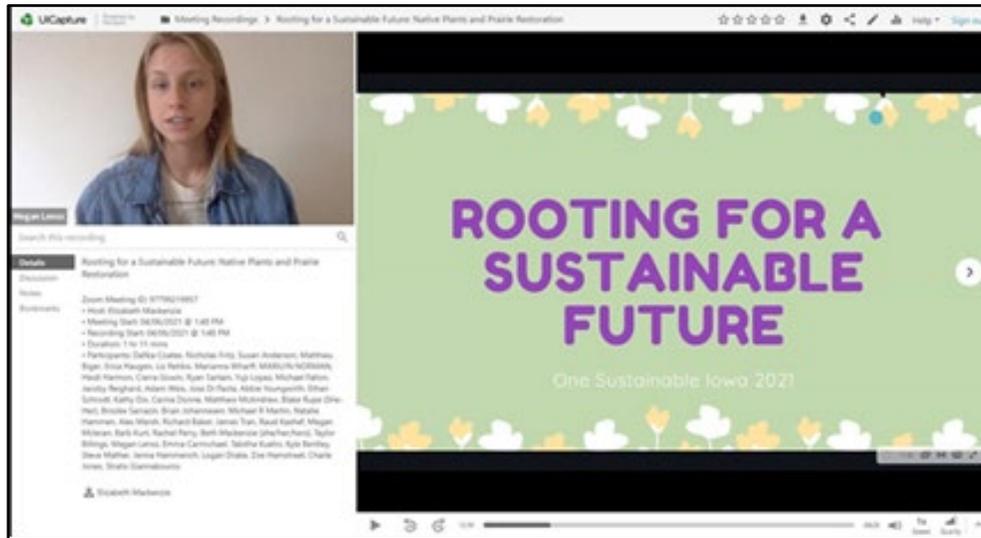
1. The events needed to be centered around a sustainability theme;
2. The events needed to have a virtual offering; and
3. The events would need to be open to the public, as Network members from across the state would need to be able to join virtually.

If these three qualifications were met, the Network was happy to include the event as part of the Earth Month Symposium.

The One Sustainable Iowa Network for the 2021 Earth Month Symposium One Sustainable Iowa Network consists of numerous partners from institutions across Iowa. The Network participating in the Symposium consisted of the following academic higher education institutions and community partners:

- Iowa State University
- University of Northern Iowa
- University of Iowa:
 - Iowa Initiative for Sustainable Communities
 - UI Department of Earth and Environmental Sciences
 - UI Presidential Sustainability Charter Committee
 - UI Honors Program
 - UI Center for Human Rights
 - UI Lecture Committee
 - UI Office of Sustainability and the Environment
 - UI Public Policy Center
 - UI Center for Global and Regional Environmental Research
 - UI Tippie College of Business
- Central College
- Des Moines Area Community College (DMACC)
- Drake University
- Grinnell College
- Iowa Western Community College
- Luther College
- Simpson College
- Iowa Environmental Council
- Johnson County Food Policy Council
- Impact7G
- Iowa Recycling Association

The following is a list of the events officially hosted, in part, in association with the One Sustainable Iowa Earth Month Symposium. Pictured here is a still from the session: "Rooting for a Sustainable Future: Native Plants and Prairie Restoration" hosted by the UI OSE on Tuesday, April 6, 2021, from 2:00 PM 3:00 PM. Included is the title of each event, the date and time of the event and the host of the event. In total, over the month-long symposium there were 24 events hosted as part of the Symposium.



Future of the One Sustainable Iowa Symposium and One Sustainable Iowa Network UI OSE interns will host the in-person event in 2022. This is anticipated to take place in the Spring semester, on the UI campus. Organizers will begin planning this event in Fall, 2021. The plan is to utilize campus resources to assist in planning this event, namely the fall semester Event Planning class offered in UI Tippie College of Business, as well as the fall semester Sustainable Events class offered via the Event Management Certificate at UI. The event will be based on their recommendations. We are excited to offer focus tracks for those interested in:

- Sustainability in academics
- Sustainable living on campus and off campus
- Sustainable facilities and landscaping
- Sustainability in research

A few sessions will be offered on these topics, so those attending can get a well-rounded understanding of all initiatives and trailblazers advancing these sustainability initiatives on campus and beyond. The <https://www.onesustainableiowa.com/> website will be utilized to update the Network on these plans, recruit student leaders across Iowa to plan and orchestrate the events and communicate the Symposium to the Network.

University of Northern Iowa

For more than a decade, UNI has helped to lead efforts to advance watershed improvements in Dry Run Creek (DRC). This includes educating beyond the borders of campus. UNI is the frequent host of watershed tours, like this one being led by Facilities Management staff. These tours have broad ranging target audiences from ecologists to contractors in focused workshops. On one end, UNI's Tallgrass Prairie Center has hosted numerous events focusing on the water quality benefits related to habitat restoration and reintroduction of native species. On the other end, campus grounds serve as a perfect learning laboratory for contractors interested in offering new services similar to the broad range of constructed best management practices (BMPs) at UNI.

Despite the diverse audiences, these events have always served as a forum to demonstrate the wide breadth of BMPs that can be implemented on broad scales. They also encourage implementation of these same type of practices in areas outside the UNI campus.



Beyond the work that has been done on campus, UNI also plays a large role in community engagement by helping to visually tell the story of the DRC watershed. One example of this is through the work of the Geoinformatics Training Research Education and Extension (GeoTREE) Center. The GeoTREE Center has utilized the application of GIS technologies to provide unique and powerful views of the watershed. These applications are able to easily demonstrate a variety of watershed characteristics to specific stories that may otherwise be left untold.

One of the first applications of interactive GIS in the watershed was focused on highlighting all of the best management practices that had been installed in the watershed, featuring a sort function to differentiate between BMP types (<http://www.geotree.uni.edu/web/bmp/>). More recent additions to the GIS toolbox include story maps. This type of map is designed to provide specific illustrations as users virtually travel around the watershed, just like the story map linked in the "Campus Operations" section of this report. Another such story map features the recreational locations within the DRC watershed, as well as a virtual flyover of the watershed (<https://arcg.is/fjbDe>). The dynamic interface shown below leads viewers on a different kind of GIS experience than they would typically receive.



One unifying aspect of all of UNI's work in Dry Run Creek (DRC) is the leadership and engagement from the university and other stakeholders on the DRC Watershed Advisory Board. Currently, four representatives from campus bring their expertise and passion to this group to advance the overall work. Their efforts help to build partnerships with the local community, private businesses and other government agencies. This coordinated effort has also led to strategic determinations on the most practical projects prioritization.

All Regent Institutions

In capital project administration, Regent institutions save approximately \$147,000 annually by implementing the following sustainable practices, saving trees, water, carbon dioxide emissions and administrative time.

- **BidExpress®**: Since January 2018, Regent institutions have used this secure electronic bidding software to receive 200 digitally-signed bids and proposals per year, virtually eliminating bidding errors.
- **DocuSign®**: Since November 2018, Regent institutions have used this secure electronic signature software to transmit, review and approve 300 property and facilities documents per year. Specifically, design professional agreements, construction contracts and road repair agreements with the Iowa Department of Transportation are processed with DocuSign®.
- **Zoom®** meetings: Since January 2019 and one year prior to the pandemic, three of the four quarterly Interinstitutional Facilities Meetings have been done virtually, saving gas, carbon dioxide emissions, administrative time and box lunches.
- **Electronic Document Storage**: As of January 2020, the Board Office scanned the paper files of all capital projects over the last 10 years into electronic files (pdfs). These files are stored with newer electronic files coming out of BidExpress and DocuSign.