Annual Report

Spring 2020 – Spring 2021





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Executive Summary

Despite the COVID-19 pandemic, this was another successful year for the Sustainability Hubs. Our Hub Coordinators, with the help of their graduate assistants and the support of the Office of Sustainability, have led the development or advancement of a variety of robust sustainability initiatives as well as facilitating or monitoring initiatives in the twelve Hub themes: buildings, climate, energy, food, grounds, human resources, investments, procurement, student life, transportation, waste, and water.

The onset of the COVID-19 global pandemic in March 2020 has magnified the urgent need to reimagine the University as a more flexible and resilient institution. The framework of sustainability is designed for such flexible, multi-criteria and resilient systems-thinking and decision-making. Ability to apply systems thinking and multi-criteria decision-making to today's world is, in fact, a core competency critically needed by students, faculty and staff alike.

Immediately below are bulleted 2020 highlights; please continue reading for a detailed summary of 2020 highlights by Sustainability Hub, followed by appendices listing Hub-supported and Hub-related initiatives, events, engagements, and media mentions, as well as photo captions. Relevant 2021 Sustainability & Climate Action Plan draft goals are referenced in the tables in the appendices.

2020 Highlights

- Launch of popular Ohio University Sustainability Series Podcasts by Climate and Sustainability Ambassadors (Sustainable Administration Hub)
- Offering of robust set of in-person (pre-pandemic) and virtual (post-pandemic) cocurricular engagement sustainability opportunities through the Climate and Sustainability Ambassadors (Sustainable Administration Hub)
- Creation of website for the new green roof on Schoonover, populated with a variety of
 informational materials and virtual experiences to support faculty and student
 engagement in the project (Sustainable Living Hub)
- Initiation of numerous faculty and student projects on Schoonover and other green roofs while maintaining proper pandemic protocols, advancing our research, outreach, communications, and educational objectives (Sustainable Living Hub)
- Enhancement of the Triple Bottom Line Cost Benefit Analysis (TBL CBA) tool with additional TBL-CBA case studies, expanded databases, a user manual, a draft manuscript for publication, and local and regional presentations (Sustainable Infrastructure Hub)
- Development of Sustainability Project Laboratory to include class and research projects that support new Sustainability & Climate Action Plan goals, and utilization of these projects by the EcoChallenge competition and in a variety of courses (Sustainable Infrastructure Hub)

Sustainable Administration Hub



Figure 1: Climate and Sustainability Ambassadors, 2019

Overview

Despite the challenges presented with less students on campus and doing most events virtually due to COVID-19, the Sustainable Administration Hub has had another successful year in promoting campus sustainability. Key accomplishments in calendar year 2020 include (described in detail below):

- Multiple in person events in Spring 2020 before COVID-19 changed the modality of the university, and several more virtual events throughout Fall 2020
- A recruitment video for the Climate and Sustainability Ambassadors was created, and published on the Ohio University YouTube channel (sustainability playlist); this video can serve as a way to recruit ambassadors remotely and even when we return to inperson classes
- The launch of the Ohio University Sustainability Series Podcasts in Fall 2020, which are published in both Apple and Spotify podcasts every Thursday, and follow the monthly themes of the Office of Sustainability
- Strengthened relationships between the Office of Sustainability and key staff members within the hub themes of Human Resources (as well as Diversity & Inclusion) and University Purchasing

Climate and Sustainability Ambassadors

The main ongoing initiative in the Sustainable Administration Hub is the student-centered action group called the Climate and Sustainability Ambassadors. The Climate and Sustainability Ambassadors work both on and off campus to increase engagement in the broad area of sustainability and improve climate literacy. While the ambassadors work in nearly all aspects of sustainability including the Sustainable Administration Hub themes of Climate, Procurement, Investments and Human Resources, the most direct connection to the Sustainability and Climate Action Plan (SCAP) goals are in the areas of waste & energy (Infrastructure Hub), transportation (Living Hub), and climate (Administration Hub); the podcast series produced by the ambassadors however follows the monthly themes of the Office of Sustainability and therefore covers all aspects of the SCAP. Thematic focuses in each Hub encourage interactions between all Hub participants. See <u>Appendix I:</u>
Sustainable Administration Hub-supported Initiatives for more details of Hub-supported initiatives.

Spring 2020 Engagement



Figure 2: Ambassadors volunteering with Habitat for Humanity

In spring 2020, prior to spring break (when the campus began remote learning in response to COVID-19), the ambassadors participated in a climate education event at Athens Middle School (with the Youth Climate Action Team), served as bin goalies for a home basketball game, and partnered with Habitat for Humanity for an on-site build day in Nelsonville. Due to the majority of the remainder of our planned March-May events being in person, they were canceled after spring break. However, ambassador engagement and participation was at an all-time high in April 2020 for virtual Earth Month. Ambassadors provided content for

7 days of virtual Earth month. During spring 2020, there were approximately 60-70 ambassadors on our roster, with 30-35 engaged (see <u>Appendix II: Sustainable Administration Hub Engagements, Events and Media Mentions</u>).

Fall 2020 Engagement

Although the group had to conduct most events remotely in fall 2020, we continued to have around 60 members on our roster, with around 30 engaged in at least 1 activity, and 12 meeting the 3 or more events requirement. We currently have similar numbers in spring 2021 and continue to add new members weekly. Part of the reduction in participation in Fall 2020 was due to a smaller roster, but also the challenges of engaging students remotely during COVID-19; in addition to classes, many students are also home and balancing more responsibilities (family, work, etc.) that they might normally in a typical in-person semester. Additionally, slightly fewer events were offered in fall 2020

(detailed more below) as we offered only a small range of in-person events, when we would normally have a much larger number.

Specific Climate and Sustainability Ambassador Events in 2020



Figure 3: Screen shot of Ambassador Podcast title slide.

During the 2020 fall semester the Climate and Sustainability Ambassadors participated in 12 events remotely and socially distanced across campus (<u>Appendix II: Sustainable</u> <u>Administration Hub Engagements, Events and Media Mentions</u>). September 2020 saw the creation of the *Ohio University Sustainability Series Podcast* with weekly contributions from ambassadors. The podcast provided an educational opportunity for students to learn more about the monthly Office of

Sustainability fall themes (water, grounds, purchasing, investing) and connect with community members remotely by hosting interviews with experts in the field. The podcast is published every Thursday on Apple and Spotify and will continue into the 2021 spring semester following the themes of waste, student life, food, and climate.



Figure 4: OHIO storm drain marked by an ambassador.

Ambassadors on campus also participated in socially distanced activities including marking 82 storm drains across campus and collecting College Green acorns for spring planting (Appendix II: Sustainable Administration Hub Engagements, Events and Media Mentions). Students mostly engaged remotely due to the COVID-19 limitations on campus housing. Ambassadors were able to participate in off-campus events at home by finding ways to be sustainable in their local communities. These individual events included trash pickup, newsletter creation, and recycling education. Admittedly, the fall 2020 semester was challenging with so many events moved online, but the ambassadors continued to prove resilient and adaptable.

Other Connections Established in the Sustainable Administration Hub

Despite the challenges brought on by COVID-19, the ambassadors have expanded their reach well beyond the campus community with our podcast series (described below). The podcasts have had over 500 downloads since their launch in September 2020 (over 100 each month), and the number of

subscribers continues to grow. Our top 5 episodes have over 40 downloads each. In addition to the Climate & Sustainability Ambassador initiative, Sustainable Administrative Hub members strengthened relationships with new staff in University Purchasing (who led the Sustainable Administration Hub seminar in fall 2020) and continue to improve relationships with sustainable investing faculty and staff (who are scheduled to lead the spring 2021 seminar). From spring 2020 – spring 2021, we have also maintained the relationship with University Human Resources and Diversity and Inclusion that was fostered in spring 2020 through the Sustainable Administration Hub seminar. Please see <u>Appendix I: Sustainable Administration Hub-related Initiatives</u> for other initiatives related to the Sustainable Administration Hub but primarily supported by other members of our campuses or communities.

Sustainable Living Hub



Figure 5: Schoonover Green Roof, 2020

(See <u>Appendix I: Sustainable Living Hub Initiatives</u>, and <u>Appendix II: Sustainable Living Hub Engagements</u>, <u>Events and Media Mentions</u> for complete lists and details.)

The Sustainable Living Hub mission is to advance sustainability in four areas: food, grounds, transportation, and student life. The Sustainable Living Hub's core accomplishments have been the development of two main sets of initiatives, one related to advancing green infrastructure on campus and the other to regional food security.

The primary green infrastructure initiative was the installation of a green roof on campus that has engaged students and faculty in education, outreach, research, engineering design and communications projects. The green roof project led to representation on the Steering Committee of the Greater Ohio Living Architecture Center (GOLA) and the classification of Ohio University as a Regional Living Architecture Center.

The OHIO Student Farm and the Farm to the OHIO Working Group (FOWG) are initiatives dedicated to improving the wellbeing of campus and community by strengthening our regional food security. The OHIO Student Farm enhances the quality of OHIO student life and strengthens its academic mission while the FOWG contributes to OHIO's sustainability and community engagement goals by facilitating the purchase of local produce from area farmers by OHIO's Central Food Facility.

Green Infrastructure

Green infrastructure includes systems that reduce the flow of stormwater runoff (and the pollutants carried with it from impervious surfaces) into stormwater systems and natural bodies of water. The main initiative in 2020 was to advance the Schoonover Green Roof Project. Green Roofs are a type of green infrastructure offering a suite of additional benefits beyond stormwater management. Green roofs incorporate vegetation on rooftops, increasing energy efficiency through insulation and heat offsets; increasing biodiversity; improving air quality; and protecting rooftops from UV damage, which increases their lifespan and reduces waste.



Figure 7: Pollinators on the Schoonover Green Roof

The green roof project was initiated in 2018 and a new installation was added to campus in July 2020. Educational resources and virtual engagement opportunities are available through our website to increase the accessibility of



Figure 6: Schoonover Green Roof, fall 2020

our new green roof, which is not open to the public due to weight limitations. The <u>website</u> includes a link to a streaming camera on the Schoonover Green Roof; a video tour of green roofs in Athens; downloadable informational flyers for classroom use; access to data being collected on the roof; and synopses of research, communications, and engineering projects on green infrastructure by students and faculty.

Green Infrastructure Project Goals

- 1. Promote new green infrastructure on campus
- 2. Engage students, faculty and administrators in advancing our sustainability and climate action plan through existing green infrastructure
- 3. Quantify and communicate benefits of green roofs by stimulating research, data sharing, arts, communications, and engineering projects by students and faculty
- 4. Develop community, regional and national partnerships in advancing green infrastructure
- 5. Establish a vibrant interdisciplinary student organization that would support leadership development among students interested in green infrastructure

The main accomplishments toward achieving our Green Infrastructure goals include:

- 1. Goal 1: Promoted new green infrastructure on campus
 - a. Installation of a new green roof on Schoonover Center, July 2020
 - b. Approval of a Proposal Initiation Form for an estimate on a green roof over a bike rack, January 2021
- 2. Goal 2: The project engaged 29 faculty and 160 students from 19 departments or schools across eight colleges
 - a. Expanded educational resources and virtual engagement opportunities available on a new website for the Schoonover Green Roof Project. This includes a set of six informational flyers discussing green roof environmental benefits, economics, policies, psychosocial benefits, and technology
 - b. Undergraduate and graduate students learned about the green roof project in 19 different courses; In some classes, more than 150 students were introduced to the green roof project and learned about benefits of green infrastructure; In others, the green roof was a focus of class assignments, independent research, or capstone/senior design projects
 - c. A survey was deployed across all administrative units, colleges, schools, and departments at the university over two semesters with 280 responses, helping us measure attitudes and knowledge about green roofs and engage new participants.
 - d. A Green Infrastructure subcommittee, established 2020, in the University Sustainability Committee provides coordination of user management, engagement, research and data management, and will stimulate new faculty and student involvement





Figure 8: Undergraduate students at a campus native plants garden and on the Schoonover Green Roof setting up a study on arthropod diversity

- 3. Goal 3: Stimulated at least 34 research, data sharing, arts, and engineering projects by a multidisciplinary group of students and faculty
 - a. Faculty initiated research projects on rainwater retention, water flow rates, water quality, air quality, biodiversity, and energy exchange, all with undergraduate and/or graduate student involvement
 - b. Faculty and graduate students began testing data sharing platforms that will be accessible through the green roof
 - c. Students created arts and communications projects on the green roof, including media pieces for local newspapers and OHIO forums, the development of the website, the virtual tour, and an educational display
 - d. A senior mechanical engineering class designed an educational green roof model with support from a Russ College faculty member
 - e. Education majors created lesson plans to accompany the green roof models
 - f. Media pieces included 26 articles, tv spots and a podcast about the green roof project with 13 produced by students and two student pieces re-posted by regional and national news outlets

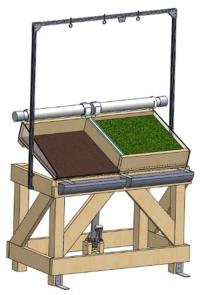




Figure 9: The design and building of green roof models by engineering students

- 4. Goal 4: Develop community, regional and national partnerships
 - a. Partnership established with Holzer Clinic, a local medical facility, to conduct research on their intensive green roof
 - b. Collaborations with community partners, including Rural Action and Habitat for Humanity, to facilitate the building and installation of green roof models
 - c. Donation agreements are signed with eight regional middle and high schools and the Kennedy Museum to use green roof models for improving scientific literacy
 - d. Formalized relationships with regional and national green roof organizations with Ohio University representation on the Steering Committee for Greater Ohio Living Architecture (GOLA) and becoming a Green Roofs for Healthy Cities (GRHC) Regional Academic Center of Excellence (RACE)
 - e. Ohio Museum Complex: a new mAppAthens tour on green infrastructure was developed



Figure 10: Green roof at Holzer with filming of a student collecting soil samples

- 5. Goal 5: Established a new student group, the Green Initiative, in February 2020 with student leaders initiating four subcommittees in media, research, advocacy, and outreach
 - a. Active membership of undergraduate and graduate students is 65 with seven officers leading the overall organization and subcommittees
 - b. More than 150 undergraduate and graduate students have expressed interest in the Green Initiative
 - c. Students stimulated community engagement through the creation of social media accounts to promote green infrastructure
 - d. Outreach efforts in the broader community stimulated interest in green infrastructure and promoted sustainability literacy; The group reached approximately 400 individuals, primarily K-12 students, over 18 months at 10 local STEM events and festivals

The Ohio Student Farm



Figure 11: Students and faculty with produce from the OHIO Student Farm.

The OHIO Student Farm is a site of interdisciplinary, experiential learning where, through hands-on education in food production, sustainability becomes a real presence in students' lives. Students across the university interact with the Farm in a variety of ways. The number of students engaged with the Farm grew to over 300 yearly before the pandemic. The Farm has been used as an interdisciplinary learning laboratory for academic classes, student market internships, and student club activities.

The OHIO Student Farm goals included:

- 1) Maintaining the Good Agricultural Practices Certificate (GAP) for sales to OHIO Central Food Facility (CFF)
- 2) Expanding market sales and donations of student-grown food to address campus and community hunger
- 3) Increasing student awareness of, and involvement, with the OHIO Student Farm.

The main accomplishments over the past year include:

Goal 1: Renewal of GAP Certification in 2020

<u>Goal 2</u>: Distribution of produce grown at the OHIO Student Farm. Sales were discontinued during the pandemic but all produce, valued at \$24,500, was able to be harvested and donated to local community organizations. Of the total, \$16,000 went to Chesterhill Produce Auction, \$4200 to Community Food Initiatives, and \$2500 to international students on campus.

Goal 3:

- a. The Student Farm provided positions to two AmeriCorp students and a graduate assistant in 2020 but the pandemic made it impractical to provide opportunities for student interns as had been planned and funded by sales of produce in previous years.
- b. The Food Matters Club continued to meet bi-weekly to plan educational programs that encourage sustainable food production and purchasing.

Farm to OHIO Working Group (FOWG)



Figure 12: Culinary Services labeling for regionally purchased food.

The FOWG includes campus and community representatives grant funded by the Sugar Bush Foundation who meet twice a month to advance OHIO's institutional procurement of regional food. Due to the COVID-19 pandemic, many of the FOWG annual goals could not be met. For instance, OHIO's Central Food Facility procured little regional food, as their production was drastically reduced. However, FOWG has continued to meet its goals of educating students about the benefits of local food through social media and virtual events; has organized a regional Farm to Institution Summit to be held virtually the second week in May; and has submitted a proposal to renew Sugar Bush grant funding.

Other Connections Established in the Sustainable Living Hub



Figure 13: Students join with community members to collect acorns for stratification and planting, in cooperation with the Athens Arbor Day Committee.

The Sustainable Living Hub also engages with other campus sustainability initiatives related to food, grounds, transportation, and student life. One green roof research project by students is measuring arthropod diversity in a campus native plants garden for comparison to the green roof system. The Living Hub has also collaborated with the OHIO Landscape Coordinator to place new bat houses on campus and to maintain and to increase natural habitats and certified monarch waystations. The Tree Advisory Committee (TAC) has continued to meet quarterly to discuss campus tree care. TAC has worked with Grounds Services on the Tree Care Plan, resulting in Ohio University's designation as a

Tree Campus USA for the fifth year in a row. All transportation initiatives, including Bobcat Pass, electric vehicles and charging stations, Hockhocking Adena Bikeway, and the Parking Master Plan work to ensure safe, affordable, efficient routes and to reduce carbon emissions. The spring 2021 Living Hub seminar focused on sustainable transportation methods supported by the campus and city. The Hub also works to promote Student Life initiatives, including promoting safe practices during the pandemic, engaging student organizations in learning about sustainability, and supporting Sustainability and Climate Ambassadors initiatives.

Sustainable Infrastructure Hub

The main responsibility of the Infrastructure Hub is to monitor and create engagement ecosystems related to the Hub initiatives of energy, water, buildings, and waste. Hub-supported and Hub-related events have spurred engagement across campus. Currently, 16 staff and faculty across campus are involved in projects or initiatives related to Hub goals. (See <u>Appendix I: Sustainable Infrastructure Hub-supported and Hub-related Initiatives for complete initiatives list and details.)</u>

Many Hub-related initiatives that have occurred on campus have been mentioned in the media (see <u>Appendix II: Sustainable Infrastructure Hub Engagements, Events and Media Mentions</u>). The Hub Coordinator and Hub Graduate Assistant also attended a variety of events in their official capacity, including virtual seminars by Dr. Fogt and Dr. Thompson, University Sustainability Committee meetings, monthly Hub coordinator meetings, weekly TBL-CBA tool meetings, Zero Waste meetings, and the EcoChallenge.

Over 45 people attended the virtual Infrastructure Hub seminar on September 14, 2020. Alex Burke, Environmental Sustainability & Energy Procurement Advisor at Cardinal Health and Ohio University alumnus, presented, "Implementing Sustainable Energy Projects – From Ideation to Carbon Free Power." This seminar was also live streamed on the Ohio University Office of Sustainability Facebook page. The spring Infrastructure Hub seminar was postponed until fall 2020 due to the COVID-19 outbreak. (See Appendix II: Sustainable Infrastructure Hub Engagements, Events and Media Mentions for full details.)

In addition to the overall objective of the Sustainable Infrastructure Hub to promote sustainable practices in the areas of energy, water, buildings, and waste, two specific goals for the year were set:

- 1. Launch the Sustainability Projects Laboratory (SPL) to provide experiential learning opportunities in the realm of sustainability to students and faculty at Ohio University
- 2. Develop a Triple-Bottom-Line (people, planet, prosperity) Cost Benefit Analysis (TBL CBA) tool to evaluate and create discussion/consensus on the true value of sustainability projects

Sustainability Project Laboratory

The SPL (https://www.ohio.edu/sustainability/reporting/sustainability-project-laboratory) is live and populated with projects. Several projects were used in the 2019 EcoChallenge. Currently, the SPL hosts 34 projects. The Infrastructure Hub SCAP goals (energy, water, buildings, waste) all have at least one project. Additionally, there are projects that relate to SCAP goals in other Hubs. All the SCAP goals could potentially be linked to a project in the SPL as the number of projects continue to grow.

Sustainability Project Laboratory

Figure 14: Website screen shot for the Sustainability Project Laboratory

The SPL continues to advance, although impeded greatly by COVID-19. Demand for hands-on and experiential learning has decreased due to the virtual format of many courses. In this down time, we are renovating the SPL website and adding projects in preparation for normal operation on campus. An international graduate student was selected to focus on the SPL for the 2020-21 academic year but was unable to obtain permission to come to the United States. Instead, the current Infrastructure Hub GA and a Nelsonville-York High School intern have taken on the responsibility to build the SPL. The SPL continues to develop and improve despite challenges.

Triple Bottom Line Cost Benefit Analysis (TBL CBA) Tool



Figure 15: TBL CBA presentation to Dr. Geoff Dabelko's Environmental Studies class.

The TBL CBA tool has made great strides and has received considerable attention during the past year. It has been presented in several classes, to Cardinal Health, and at the AIAS: REVITALIZE conference in October. Additionally, we have been invited to present at the Farm to OHIO Summit in May. A general presentation was created in PowerPoint for future

adaptation along with an activity. It is being developed through a collaboration between students, faculty and staff from the Sustainable Infrastructure Hub, the Office of Sustainability, and the Voinovich School's Social Enterprise Ecosystem group. The Sustainable Infrastructure Hub graduate assistant is responsible for the tool development and for leading a weekly progress meeting with the group of collaborators. In 2020, several case studies were completed on topics of renewable energy,

recycling, construction demolition and debris, and green roofs. The group of collaborators are currently preparing a User's Guide and a manuscript for publication while refining the tool itself.

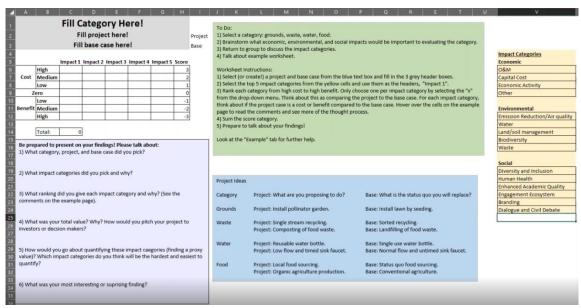


Figure 16: An Excel-based TBL CBA activity was developed as a teaching and discussion tool.

Other Connections Established in the Sustainable Infrastructure Hub: EcoChallenge

The annual EcoChallenge competition involved 5 teams and 36 students from the Russ College of Engineering, College of Business, the Scripps College of Communication, and other colleges across campus to solve sustainability issues in a cross-functional team format. Led by Sustainable Infrastructure Hub Coordinator Dave Bayless, College of Business faculty member Andrew Pueschel and Ohio University alumnus Dan Squiller, and with the help of Facilities Management & Safety and the Office of Sustainability, students worked throughout the fall semester to identify, analyze and propose their solutions to a panel of expert judges with the top five teams presenting on November 19th, 2020 over Microsoft Teams. The winning team proposed implementing a foot-operated door opener in restrooms to reduce the spread of COVID-19 at Ohio University. The four other teams proposed strong projects as well, including: creating more sustainable and useful welcome bags to incoming OU students, providing reusable cups to OU students to reduce single-use cup consumption, installing energy efficient appliances in dorm rooms, and purchasing electric lawn mowers for grounds management. All teams showed great flexibility and dedication by succeeding in the virtual format.



Figure~17:~Teams~meeting~screens hot~of~winning~EcoChallenge~team~(https://www.ohio.edu/news/2021/02/2020-eco-challenge-winning-team-hopes-reduce-spread-covid-19-campus)

Appendices

Appendix I: Hub Initiatives

Sustainable Administration Hub-Supported Initiatives

Initiatives	Goals	SCAP Alignment
Climate and Sustainability Ambassadors: A decentralized student volunteer and climate action group.	1.Create opportunities for student engagement in the areas of climate literacy and/or sustainability, with the specific goal of having each Ambassador participate in 3 events a semester 2. Increase student engagement at Ohio University in the areas of sustainability and climate literacy 3. To foster existing relationships and form new partnerships with key groups both on and off campus to foster an engagement ecosystem around the concepts of sustainability and climate literacy	Waste Reduction, Energy Use Reduction, Transportation Emissions Reduction. Improving Climate Literacy. The podcast series created and produced by the ambassadors follows the monthly themes of the Office of Sustainability and therefore (eventually) covers all SCAP areas
Hub Seminars: Monthly Seminars, open to the public for Hub Coordinators, Faculty and Staff to discuss SCAP goals.	To promote communication regarding the University's Climate Action plan with students, staff, and faculty across all campuses and centers	Communication and Education for all SCAP targets and initiatives

Sustainable Administration Hub-Related Initiatives

Initiative (Lead department/Unit)	SCAP Alignment
Diversity and Inclusion Mix and Mingle Events	Ensure that sustainability, diversity, and
(Diversity & Inclusion)	inclusion are factors in employee hiring,
Events which increase sense of belonging at	professional development, retention, and
OHIO	assessments
Affinity Organization Council (Human	Ensure that sustainability, diversity, and
Resources)	inclusion are factors in employee hiring,
Resource for staff and faculty that provides	professional development, retention, and
opportunities to share interests and hobbies	assessments
Women Leading OHIO (Human Resources)	Ensure that sustainability, diversity, and
	inclusion are factors in employee hiring,

A program offered through the Women's Center to retain and support women leaders across the faculty and staff at Ohio University	professional development, retention, and assessments
Inclusive Pedagogy Academy (Human Resources) Program to engage faculty with various approaches and techniques to teach and engage with students	Ensure that sustainability, diversity, and inclusion are factors in employee hiring, professional development, retention, and assessments
Flexible Workspace Policies (Human Resources) Staff and faculty are able to arrange alternative workspaces away from campus to reduce GHG emissions from commuting	Support and promote employee physical and mental health, wellness & resilience
Diverse Junior Faculty Mentoring Program (Human Resources) A mentorship program offered through D&I to retain and support diverse faculty	Ensure that sustainability, diversity, and inclusion are factors in employee hiring, professional development, retention, and assessments
Produce Buying Club (Wellworks) Purchasing and delivering food to club members from local farms and families	Support and promote employee physical and mental health, wellness & resilience; support the local food economy with preference to "neighborhood food" products
Virgin Pulse Wellness Tracking (Wellworks) Program for benefits-eligible employees to track healthy habits with a mobile or wearable device	Support and promote employee physical and mental health, wellness & resilience
Out and Strong Wellness Group (Wellworks) A training and exercise group especially targeted for those in the LGBTQ community	Support and promote employee physical and mental health, wellness & resilience; Ensure that sustainability, diversity, and inclusion are factors in employee hiring, professional development, retention, and assessments
Sustainable Investment Group (College of Business) Experiential learning exercise run by students and focused on responsible investments	Increase investments that support sustainable economic activity
2050 Carbon Neutrality Pledge (President's Office) Ohio University's pledge to reach carbon neutrality	Reduce institutional greenhouse gas emissions
Annual Greenhouse Gas Inventory (Office of Sustainability)	Reduce institutional greenhouse gas emissions

Annual Procurement Fair (Procurement) A green event that encourages availability of sustainable products from University suppliers	Increase purchasing of sustainable and/or recycled products across a range of categories
Sustainable Procurement Group (Procurement) Advisory group to develop sustainable procurement guidelines	Increase purchasing of sustainable and/or recycled products across a range of categories

Sustainable Living Hub-Supported Initiatives

Initiative	Goals	SCAP Alignments
Ohio Museum Complex: Extends Kennedy Art Museum with outdoor learning labs and trails Schoonover Green Roof Project: An engagement ecosystem and outdoor research facility	Support outdoor education that increases sustainability literacy, promote sustainable use of grounds through native species, and engage students, faculty, staff and community members in creating and utilizing experiential learning opportunities Management of a living laboratory that engages students, faculty, and community members in research and educational initiatives that communicate benefits of green infrastructure as sustainable design	Create and maintain healthy, natural, biodiverse and beautiful landscapes that can act as the foundation for sustainability-oriented experiential learning opportunities Reduce building impacts by using best practices in construction, renovation and demolition; Create, enhance and track transformative sustainability engagement ecosystems; Reduce impacts from storm water; Increase opportunities for formal, experiential and community-engaged sustainability learning experiences
Bike Rack Green Roof: Promote biking in all weather	Develop a new green roof cover over a bike rack that would encourage biking and serve as an educational showpiece	Reduce carbon emissions from transportation

Green Initiative: Student organization with the goal of promoting green infrastructure	Promote green infrastructure as a sustainability initiative on campus and in the community through outreach, media, research and advocacy	Prioritize sustainability, diversity and inclusion as positive student attributes in academics, recruitment and retention efforts; Offer opportunities to learn about or contribute to sustainability initiatives
Sustainability website & recruitment materials	Prioritize sustainability, diversity & inclusion through the Schoonover Green Roof Project website page	Increase opportunities for formal, experiential and community-engaged sustainability learning experiences
OHIO Student Farm: An experiential learning lab and food production site	Engage community members in workshops, sell produce during seasonal markets, donate to community food pantries and Cats' Cupboard	Support local & regional food economy; Increase opportunities for formal, experiential and communityengaged sustainability learning experiences
Cats' Cupboard: Food Pantry offered twice monthly pick-up of pre- ordered bags of food by appointment during the pandemic	Decrease hunger by providing students nutritional assistance	Support and promote student physical and mental health, wellness and resilience
Discovery Kitchen: Series of workshops where participants make and enjoy a nutritious & delicious meal using local produce (on hiatus in 2020-21 due to the pandemic)	Foster the creation of a resilient regional food system that engages students and community members with their local food system	Provide & Promote positive food choices for campus members
Farm to OHIO Working Group: A regional partnership to expand regional food procurement	Strengthening the regional food economy. Encouraging the University to purchase GAP certified produce from regional producers	Support local & regional food economy

Food Matters Student Org: Bi-weekly student meeting to discuss food on campus	Education and programming in areas related to sustainable and local food sources	Provide & promote positive food choices for campus members
Athens Arbor Day Committee: Community based non-profit	Increase public awareness of services provided by trees and opportunities for public participation to promote conservation, protection, and stewardship of our tree resources	Create and maintain healthy, natural, biodiverse and beautiful landscapes that can act as the foundation for sustainability-oriented experiential learning opportunities
Tree Advisory Committee: Quarterly meeting to discuss campus tree care	Provide support to Grounds Services with their planning for, education and maintenance of campus trees; Development of community- wide programming and outreach	Create and maintain healthy, natural, biodiverse and beautiful landscapes that can act as the foundation for sustainability-oriented experiential learning opportunities

Sustainable Living Hub-Related Initiatives

Initiative (Lead department/Unit)	SCAP Alignments
McCracken Green Roof (Patton College):	Create and maintain healthy, natural,
A campus green roof accessible to student	biodiverse and beautiful landscapes that can
viewing with outdoor student area	act as the foundation for sustainability-
	oriented experiential learning opportunities
<u>Jefferson Hall Green Roof</u>	Create and maintain healthy, natural,
A green roof accessible to students	biodiverse and beautiful landscapes that can
	act as the foundation for sustainability-
	oriented experiential learning opportunities
Bobcat Pass (Transportation & Parking):	Create safe, efficient, affordable and healthy
Enables faculty, staff & students to ride Athens	routes for non-single occupancy vehicle
Public Transit (APT) routes free of charge	transit
utilizing their university ID	
<u>Transportation Working Group</u> (Transportation &	Create safe, efficient, affordable and healthy
Parking):	routes for non-single occupancy vehicle
Monthly transportation meeting	transit
Zipcar & shared mobility programs (Transportation	Create safe, efficient, affordable and healthy
& Parking):	routes for non-single occupancy vehicle
	transit

Zipcar lets you drive a variety of cars on demand, by the hour or the day, around campuses, cities and airports worldwide Leaf & Volt Vehicle Fleet (Transportation & Parking): Plug in Electric Vehicles for use around campus and community	Reduce carbon emissions from transportation-related activities; Reduce single occupancy vehicle transit
Hockhocking Adena Bikeway: (Hockhocking Adena Bikeway Committee) A paved path that runs more than 20 miles along the Hocking River through Athens to Nelsonville	Create safe, efficient, affordable and healthy routes for non-single occupancy vehicle transit
Parking Master Plan (Transportation & Parking):	Create safe, efficient, affordable and healthy routes for non-single occupancy vehicle transit
Green Restaurant Association Certification at Atrium Café (College of Health Sciences & Professions): A transparent way to measure the restaurant's environmental accomplishments	Provide & promote positive food choices for campus members
Plug in EV Charging Stations (Transportation & Parking): Designated spots on campus where plug in EV's can be recharged	Reduce carbon emissions from transportation-related activities
Baker Edible Garden Project (Grounds/Plant Biology): A viable space for producing wonderful, fresh, and organic produce	Provide & promote positive food choices for campus members
WellWorks Community Supported Agriculture (Wellworks): Staff & faculty fitness center	Provide & promote positive food choices for campus members
Reusable ToGo Container Project: (Culinary Services) Carry-out boxes that can be rewashed and reused instead of adding containers to the waste stream	Provide & promote positive food choices for campus members
<u>Unused Meal Donation Initiative</u> (Culinary Services):	Provide & promote positive food choices for campus members

Meals from Student Dining Plans can be donated to those in need	
Integrated Pest Management (IPM) (Grounds): A practice that emphasizes the growth of a healthy crop with the least possible disruption to ecosystems and encourages natural pest control mechanisms	Create & maintain healthy, natural, biodiverse, & beautiful landscapes
Storm Water Management (Environmental Health & Safety): Implementing and continuing practices in line with our US EPA Stormwater permit.	Create & maintain healthy, natural, biodiverse, & beautiful landscapes
Naturalized Areas & Wildlife Habitats (Grounds): Intentional effort to leave areas of campus 'natural", with minimal maintenance	Create & maintain healthy, natural, biodiverse, & beautiful landscapes
Certified Monarch Waystations (Grounds): Sites that provide monarch butterflies with what they need to sustain migration across North America	Create & maintain healthy, natural, biodiverse, & beautiful landscapes
Battery operated tool initiative (Grounds): Research and support the purchase of low emission electric tools	Reduce carbon emissions from grounds- related activities
Sustainability Partnership with Graduate Student Orientation and Bobcat Student Orientation (Graduate College)	Prioritize sustainability, diversity & inclusion
Green Cleaning Products (Custodial, Culinary): Support the use of biodegradable and Earth friendly cleaning products	Support and promote student physical and mental health, wellness and resilience

Sustainable Infrastructure Hub-Supported Initiatives

Initiative	Goals	SCAP alignment
Sustainable Project Laboratory:	Increase access to experiential	Increase faculty, student, and
Website of sustainability projects developed for curricular purposes	learning and sustainability projects	community engagement across all hub themes

Triple Bottom Line Cost Benefit Analysis (TBL CBA) Tool: Framework for assessing sustainability impacts	Create a tool to evaluate the impacts of projects across all hub themes on campus	Communication and decision-making tool for use in all hub themes.
Operations & Maintenance: Two EcoChallenge projects supported grounds and O&M topics	Use experiential learning to improve O&M	Maintain and operate existing buildings to reduce impacts
Zero Waste Initiative: Grant funded waste reduction initiative through Voinovich School	Support Zero Waste Initiative by partnering for events, marketing, communication with constituents, and grant writing; Creating a TBL analysis for composting in the Convo	Increase diversion from landfill to reuse, recycling and composting
Virtual Reduce, Reuse, and Relax Fair: Earth day event jointly sponsored by Office of Sustainability and Zero Waste Initiative. Hosted throughout April on social media.	Educate campus community about reducing and repurposing waste for OHIO	Increase diversion from landfill to reuse, recycling and composting
Move Out: Support of student move out waste management	Ensure proper reuse and recycle stations for items discarded during move-out	Increase diversion from landfill to reuse, recycling and composting
Electric Services RFP: RECs for 100% of electricity used on campus in new contract	Increase renewable energy purchasing for OHIO	Decrease reliance on fossil fuel energy
LEED Lab: USGBC experiential learning curriculum	Provide students opportunity to learn about LEED certification for buildings	Operate and maintain existing buildings to reduce impacts
Storm water management program: Joint program with City of Athens for EPA storm water permit	Reduce storm water runoff and pollution; Maintain EPA permit requirements	Reduce impacts from storm water

Green roof:	Involve students in experiential	Reduce impacts from storm
Installation on Schoonover	learning.; Improve energy	water; Operate and maintain
Center	efficiency and storm water	existing buildings to reduce
	retention	impacts

Sustainable Infrastructure Hub-Related Initiatives

Initiative (Lead department/Unit)	SCAP alignment
Hazardous waste management (Environmental	Increase diversion from landfill to reuse,
Health & Safety):	recycling and composting
EPA program to properly dispose of	, , , ,
hazardous waste	
Lausche Plant water conservation (Heating	Reduce potable water usage and water use for
plant):	irrigation
Water treatment to reuse condensate.	
Campus Race to Zero Waste (Campus	Increase diversion from landfill to reuse,
Recycling):	recycling and composting
Formerly RecycleMainia, competition	
between university recycling programs which	
was started at OHIO and Miami	
Steam system annual shut down (Operations &	Operate and maintain existing buildings to
Maintenance):	reduce impacts; Decrease reliance on fossil fuel
Corrective & preventative maintenance best	energy
practices	
Metering & controls projects (Operations &	Operate and maintain existing buildings to
Maintenance):	reduce impacts; Decrease reliance on fossil fuel
Targeting high priority meters and controls	energy
"Develop Emerging Carbon-Based Building and	Increase diversion from landfill to reuse,
Construction Materials" (Russ College of	recycling and composting
Engineering):	1 8 1 8
DOE grant funded research by Professor Jason	
Trembly and team	
Energy dashboard (Energy Management):	Maintain and operate existing buildings to
Development of dashboard for energy	reduce impacts; Decrease reliance on fossil fuel
management	energy
Active Treatment of Mining Wastewater for	Work with communities to protect ground
Pigment Production (Russ College of	water quality and surface waters; Increase
Engineering):	purchasing of sustainable and/or recycled
	products across a range of categories

Patent and grant-funded research by Professors Guy Riefler and John Sabraw

Appendix II: Hub Engagements, Events, and Media Mentions

Sustainable Administration Hub

Engagement, Event, or Media mention

Youth Climate Ambassador Team partnership

YCAT is an initiative of Rural Action; Hub volunteers partnered with YCAT to deliver climate and environmental education in area primary schools

Sustainability Committee Meetings

Standing committee preparing and approving campus SCAP

Campus Recycling / Zero Waste Basketball Game

10 Ambassadors served as bin goalies for a home basketball game

Habitat for Humanity Building Day

12 Ambassadors worked at the Habitat for Humanity Build site in Nelsonville in February 2020

Virtual Earth Month, April 2020

7 Ambassadors provided content from book reviews to DIY and photo essays on sustainability themes throughout the month

Ohio University Sustainability Series Podcast

Weekly podcast series that follows the Office of Sustainability's monthly themes

EcoHouse Virtual Thanksgiving Recipe

Provide diverse, local and sustainable recipes for virtual Thanksgiving Dinner

Hub Seminar Spring 2020

"Creating a Sustainable Workplace: Fostering Belonging at OHIO"

Hub Seminar Fall 2020

"Sustainable Purchasing Practices at Ohio University"

iNaturalist Contribution

Individual contributions to the app iNaturalist to expand database and record biodiversity in conjunction with City of Athens Environment and Sustainability Commission

Interview with Erin Morgenstern

Individual interviews with graduate student for research titled "The Climate Movement and Career Decisions Study"

Climate Action Plan Poster Comments

Provide comments and feedback on Action Plan posters

Storm Drain Marking

Socially distanced storm drain marking across campus for Pollution Prevention Week – 82 drains marked

Engagement, Event, or Media mention

Fall Ambassador Recruitment Video

Remotely recorded video contributions compiled into recruitment video to be shown during classes to raise awareness and gain new members

Athena Sustainability Film Series Panelists

Engage with viewers and provide feedback on the film "Radical Monarchs"

Individual Remote Participation

Off-campus students found ways to be sustainable in their communities – examples: trash pick-up, trail ambassador, newsletter creation

University Communications and Marketing Video

Individually participate in UCM video

Acorn Collection

Socially distanced acorn collection on College Green for stratification and spring planting

Student Climate & Sustainability Ambassadors promote environmental literacy and action

Sustainable Administration Hub Seminar will highlight procurement initiatives

Pollution Prevention Week features events for University, local community

University, local community invited to collect red oak acorns on College Green Sept. 19

First spring Sustainable Administration Hub Seminar is Feb. 27

Sustainability Series: WE ARE THE RADICAL MONARCHS

Sustainable Living Hub

Engagement, Event, or Media mentions

Earth Day/Arbor Day Celebration 2020

Month long virtual celebration on social media and give away of tree saplings

Hub Seminar Spring 2021

Finding alternative transportation that leads to greater sustainability in our community with guest, Tia Hysell, Director of TPS

Hub Seminar Fall 2020

Schoonover Green Roof

Discovery Kitchen Food Series

Food preparation and consumption

University, local community invited to collect red oak acorns on College Green Sept. 19

Green Roof Project Provides Classroom Materials for Faculty

Schoonover Green Roof Adds Innovative Twist to Sustainability and Student Research

Sustainable Living Hub Seminar to highlight Schoonover Green Roof project

The New Green Roof at Ohio University

Schoonover's green roof is officially up and running

Schoonover Green Roof installation completed

World Environment Day focuses on biodiversity

Applied Science: How much do you know about a green roof?

Green Roof to Take Root This Spring atop Schoonover

Schoonover Green Roof to Provide Educational Opportunities, Sustainability

Living Architecture Monitor Quotes Thompson on OHIO's Green Roof Project

Ohio U moving to install getting green roof atop Schoonover Center

Schoonover Center is getting a "green" roof

Ohio University Takes Going Green to New Heights

Green Roof coming to Schoonover Center this Spring

Students plan to raise the green roof

Ohio University's Schoonover Center to don new educational green roof

Over \$380K from 1804 Fund allocated to learning, research at OHIO

Thompson Promotes Green Roof in Chronicle Story on OHIO Innovation

Thompson Receives Award, Coordinates Green Roof Project Outreach

Schoonover is going green through work of Voinovich School, University collaborators

PepsiCo Offers Grants for Colleges Going Green

<u>Turning Over a New Leaf</u>

Second annual Engineering and Technology Day shows kids STEM fun

Local Food Connections Abound in Athens

<u>University recognizes 50th anniversary of Earth Day with monthlong celebration</u>

Life at the Student Farm – I Wish I'd Found it Sooner

Moran, Trese, Kostansek Present on Creative Models for Financing the Farm

Interns Talk about Community-Based Work with Mayors, Farmers, Historians

Ohio University designated 2019 Tree Campus USA

OHIO's renowned cherry blossom trees

OHIO Chillicothe students, alumni participate in Farmers to Family food distribution

Food studies program, director to be cut in May

University recognizes 50th anniversary of Earth Day with monthlong celebration

Saving Food Studies at Ohio University is imperative

Sustainable Infrastructure Hub

Engagement, Event, or Media mentions

EcoChallenge 2020

Sustainability Pitch Competition

Hub Seminar Fall 2020

Alex Burke ("Implementing Sustainable Energy Projects – From Ideation to Carbon Free Power")

2020 ECO Challenge winning team hopes to reduce spread of COVID-19 on campus

\$1 million Sustainable Construction Materials grant

Winter Break 2020 Energy Conservation Actions

Economic Benefits of Ohio Utility-scale Solar

Pollution Prevention Week - Get Involved!

Appalachia Ohio Zero Waste Initiative receives renewal funding from Sugar Bush Foundation
An Ohio Artist and Activist is Turning Acid Mine Pollution Into Paint

Schoonover Green Roof Project completed

OHIO students, non-profit look to salvage lithium ion batteries for reuse

Utility lobbying and policy inattention hinder community solar, study finds

I-Corps@Ohio Teams Support Innovation, Create Development

Building Biodiversity: Acid Mine drainage kills biodiversity in Hocking River

Ohio U moving to install green roof atop Schoonover Center

Facilities to purchase battery-operated grounds vehicles after winning Eco Challenge entry

Appendix III: Photo Credits

Sustainable Administration Hub Photo Credits

- Climate and Sustainability Ambassadors Inaugural Meeting: Elaine Goetz
- Filming the Sustainability Promo Video: Chloe Jarrett

Sustainable Living Hub Photo Credits

- Schoonover Center and surrounding area: Ben Siegel
- Grover OHIO Student Farm sale table: unknown
- Student Farm Farmers: unknown
- Culinary Logo: Ohio University Culinary Services https://www.ohio.edu/food/sustainability
- Pollinator on Schoonover: Maddy Salyer (undergraduate photojournalism student, Scripps College)
- Schoonover Center Green Roof: Dr. Kim Thompson.
- Jamie Christie setting up an arthropod study in a Native Plants Garden on campus and on Schoonover Green Roof in July 2020: Dr. Kim Thompson
- Design by Mechanical Engineering class: Rachel Modzelewski et al. (Russ College alumnae)
- Kyle Dunlop and Joel Compston at Rural Action Makerspace: Steel Brooks (Photojournalism graduate student, Scripps College)
- Green roof at Holzer with filming of a microbiome project by students creating a video tour: Dr. Kim Thompson
- Acorn Collection in September 2020: Dr. Kim Thompson

Sustainable Infrastructure Hub Photo Credits

- (https://www.ohio.edu/news/2021/02/2020-eco-challenge-winning-team-hopes-reduce-spread-covid-19-campus)
- Abbey Rodjom Screenshots Credit