

Sustainability at UW-Madison, 2020-21

Strategic Initiatives

UW-Madison is taking rapid strides to launch a new institutional sustainability strategy, deepen campus and community resilience, and cultivate resource stewardship.

- The Sustainability Advisory Council (SAC) submitted its preliminary recommendations to executive leadership on August 13, 2021. While the recommendations are under review, the Office of Sustainability is developing implementation plans for potential initiatives.
 - Thanks to advocacy from student orgs like CLEAN and ASM, three students sit on the Sustainability Advisory Council; there iss also a SAC Student Subcommittee, which contributes critical student voices to institutional sustainability planning.
- Having established campus and community partners and identified a diverse range of resilience projects across campus, UW-Madison is preparing to release a **Resilience Assessment** in the fall of 2021, which will identify climate-related strengths, assets, vulnerabilities, and relevant indicators.
 - UW-Madison was one of eight schools selected to receive funding from Second Nature's Climate Solutions Acceleration Fund. The money will be used to support planning efforts for the proposed Community Resilience Center in South Madison. The Center will be a cross-sector collaboration that opens up during an emergency rather than closing down.
- Under the direction of the 2015 Campus
 Master Plan, UW-Madison is working to
 become a zero-waste campus by 2025. The
 Zero Waste Team, a cross-functional group
 led by the Office of Sustainability, is currently
 exploring on- and off-campus options to
 address the loss of UW-Madison's food
 waste vendor. Beginning September 1st,
 2021, the West Madison Agricultural Research
 Station will begin accepting food waste from
 five building locations as part of a trial-run.

- UW-Madison is confronting carbon by reducing emissions and investing in local, renewable energy.
 - From fiscal year 2007 to 2020, UW–
 Madison reduced total greenhouse gas
 emissions (GHG) by 46.6% per building
 square foot. Onsite GHG sources,
 including the heating and cooling plants,
 dropped by over 56%.
 - Chancellor Blank offered celebratory remarks at the open house for the O'Brien Solar Fields, currently the largest solar array in Dane County.
 Energy from the 60,318-panel, 20MW solar array—of which the university is purchasing half—will account for approximately 5 percent of UW-Madison's electricity use.
 - The new <u>Arboretum Visitor Center</u> <u>solar installation</u> includes 66 photovoltaic modules that are projected to cover about 8 percent of the Arboretum's current needs, resulting in a \$3,750 decrease in annual electricity cost.

Students in Sustainability

Through a variety of sustainability programs and collaborations, UW-Madison enables and amplifies the dedication, knowledge, and enthusiasm of its students.

- The Green Fund helps improve the sustainability of campus facilities while offering students an applied learning experience and mentorship from staff and partners. Despite the pandemic, more students applied to the Green Fund during the 2020–2021 academic year than ever before. Two highlights:
 - Green Fund students and Transportation Services staff are exploring a project that would add solar panels to campus bus shelters.
 - A Green Fund project supported a Dining and Culinary Services-operated electric vehicle food truck, which will become operational in fall 2021.



46.6% reduction in green-house gas emissions per building square foot since 2007



5%

UW-Madison's electricity use accounted for by the O'Brien Solar Fields



- Graduate student Audrey Stanton and undergraduate Mackenzie Thelen worked with the Office of Sustainability to develop a new <u>campus sustainability map</u>. The map, which is structured using the UN Sustainable Development Goals, includes information on renewable energy projects, resources for wellness, equity, inclusion, and diversity, and many other topics. As of August 2021, the map had received more than 6,500 unique views and resulted in a peer-reviewed article in Sustainability and Climate Change.
- The <u>SustainUW Podcast</u>, launched in 2020 by Office of Sustainability interns, features special guests—including professors, student activists, campus staff, and other experts who help uncover the complicated story of sustainability at UW-Madison and beyond.
- The Amplifying BIPOC Voices in Sustainability series, organized by Office of Sustainability interns, seeks to recenter the voices of Black, Indigenous, and People of Color (BIPOC) in sustainability and environmentalism. The series will resume in fall 2021, highlighting the work of one or more BIPOC community members each month through a live, interactive webinar.
- A collaboration between the Office of Sustainability intern program and student athletes at UW-Madison, Student Athlete Leaders in Sustainability (SALS) is composed of 20 student-athletes representing volleyball, soccer, hockey, rowing and more. In 2021, with support from the Green Fund,

- SALS facilitated the introduction of reusable take-out containers (OZZI) to the Athletics-operated dining centers.
- In its ninth year of operation, the Office of Sustainability Student Intern Program
 welcomed a new cohort after receiving a
 record number of applicants. This year's
 cohort represents over a dozen majors from
 Journalism and Political Science to Global
 Health, International Studies, and Philosophy.
- UW-Madison joined The Post-Landfill
 Action Network (PLAN), which "aids college
 students, as well as campus faculty and staff,
 in tackling unsustainable infrastructure on
 their campuses." All UW-Madison students
 and staff are eligible to take advantage of
 the campus membership offerings through
 December 2021.
- Five UW-Madison students joined the Zero Waste Atlas Fellowship. The Zero Waste Atlas is a new scoring system and benchmarking tool to assess a university's capacity to achieve its zero waste goals. Fellows are supported by UW-Madison's Campus Resource Coordinator and receive extensive training from Atlas program staff members.
- Beginning in fall 2021, the Office of Sustainability will partner with the Center for Leadership & Involvement as a departmental sponsor for several relevant student organizations. The missions of these organizations range from renewable energy development to local food recovery.

Undergraduate student Maggie Marshall picks kale from UW-Madison's F.H. King Students for Sustainable Agriculture



6,500 unique views to the new campus sustainability map



student-athletes

student-athletes serve in the Student Athlete Leaders in Sustainability (SALS)

Regional Leadership

UW-Madison is actively building a reputation for sustainability leadership within our local community as well as throughout the region.

- Members of the Office of Sustainability worked closely with Maria Redmond, Director of the Wisconsin Office of Sustainability and Clean Energy, to provide critical input on the role of UW System in advancing sustainability across the state. This input was incorporated into the Governor's Task Force on Climate Change Final Report, released in December 2020.
- Thanks to a campaign organized by the Office of Sustainability in 2020, more than 1,000 people from UW-Madison participated in the Focus on Energy Home Energy Savings Kit program, ordering over 25,000 LED bulbs. Once installed, these bulbs are expected to save over \$3.6 million and reduce greenhouse gas emissions equivalent to removing 243 cars from the road.
- The Wisconsin Initiative for Science Literacy at UW-Madison <u>published a free climate</u> <u>science workbook</u> to provide tools that high school and college teachers can use to help their students understand the causes and effects of climate change.
- As a part of the Net Zero Initiative from the U.S. Dairy Industry, and funded by the Foundation for Food & Agriculture Research (FFAR), UW-Madison researchers are conducting field studies in Wisconsin to measure environmental responses to various crop management interventions aimed at building soil health, reducing greenhouse gases, improving water quality and enabling new economic opportunities for dairies. This project aims to address the U.S. Dairy's 2050 Environmental Stewardship Goals.
- Supported by Bloomberg Philanthropies, a group of over twenty leading Midwestern higher education institutions, non-profits, local governments, and businesses, including UW-Madison, partnered on the <u>Midwest</u> <u>Climate Summit</u>, with the goal to develop a coordinated Midwestern response to the climate crisis.

 Members of the university are collaborating with partners from around the state as part of the <u>Climate Critical Lands</u> at the Wisconsin Academy of Sciences, Arts and Letters. Their goal is to identify and quantify carbon sequestration opportunities that prioritize cobenefits, like biodiversity and flood mitigation, and center equity in planning and decisionmaking.

Research and Scholarship

UW-Madison continues to rank in the top ten public or private research universities, generating nearly half a billion dollars in sustainability-related grant funding and conducting the most climate change research of any Midwestern university.

A small selection of recent exemplary work:

- Funded by one of UW-Madison's largest federal grants, the <u>Great Lakes Bioenergy</u> <u>Research Center</u> has been researching renewable chemicals and fuels derived from non-food plants.
- Hosted jointly by the Wisconsin School of Business and the Office of Sustainability, the Net Impact Sustainability Competition encourages students to design campus improvements that decrease its environmental footprint, improve its social impact, and reduce its operating costs. The competition attracted seventy-five students who pitched ideas to improve the sustainability of Grainger Hall facilities.
- Supported by the UniverCity Alliance, researchers from UW-Madison conducted a survey to <u>understand farmers' attitudes</u> toward nutrient loading and its contribution to groundwater contamination.
- The new <u>Center for Ecology and the</u>
 <u>Environment</u>, housed in the Nelson Institute for Environmental Studies, will bring together and formalize the work of over 20 different ecology-related academic units on campus.
- Using citizen science from around the world, researchers in CALS can better predict how species and ecosystems react to a changing climate and how to more effectively target conservation efforts.



people from UW-Madison participated in the Focus on Energy Home Energy Savings Kit program



• UW-Madison engineers have pioneered a method of reclaiming plastic waste in hopes of reducing the nearly 100 million tons of multilayer plastics used for food and medical equipment packaging.

Honors and Recognitions During the 2020-2021 year, UW-Madison

received a number of prominent sustainabilityrelated honors and recognitions.

- UW-Madison was one of just five higher education institutions, and the first university in the Big 10, to earn the **US Department of Educa**tion Green Ribbon Schools postsecondary sustainability award for its commitment to holistic sustainability in education, research, and campus operations.
- In Fiscal Year 2020, UW-Madison sourced 10 percent of its electricity from renewable sources, securing a spot on the EPA's Green Power Partnership Top 30 College & University rankings.
- The Princeton Review and the Sierra Club included the university in their annual recognitions of sustainable universities.
- The university received the Clean Lakes Alliance Organization Lake Leadership **Award** for its pioneering research in the Yahara watershed, its work on the Yahara CLEAN Compact, and its ongoing educational and volunteer opportunities aimed at addressing lake health.

• The UW Arboretum was designated a national historic landmark by the National Park Service.

On, Wisconsin: The Year Ahead

- Data collection has begun for the university's second Sustainability Tracking Assessment and Rating System (STARS) report. Building from the work of the **first report**, this effort will document progress since 2019 while matching updated reporting standards from STARS. Results are expected in spring 2022.
- UW-Madison will release a campus-wide sustainability survey in fall 2021 to gauge attitudes and knowledge about a wide range of sustainability topics.
- The Office of Sustainability and the Wisconsin Energy Institute will present a webinar series on resilience during fall 2021, which will focus on real-world solutions such as electric vehicles or smart streetlights, but also other aspects of resilience planning such as developing sciencebased climate targets.
- The Office of Sustainability, in collaboration with partners from the university, the state of Wisconsin, and beyond, will host a speaker series on financial levers for achieving sustainability goals.
- In fulfillment of the UW-Madison Resilience Commitment, the university will lay the groundwork for a new Climate Action and Adaptation Plan, to be released in late 2022.

The O'Brien Solar Fields' panels provide 20 megawatts of renewable electricity to the local community



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