

Annual Update on Environmental Initiatives

September 25, 2024

Dear Williams students, faculty, and staff,

As we venture into the academic year, I write again with an annual update on our environmental initiatives, as the implications of human-driven climate change for the earth and for people's lives and livelihoods continue to make themselves startlingly clear. From the destruction and displacement caused by widespread flash floods in the Philippines to heat deaths caused by a long string of extremely hot days in Phoenix, we are witnessing the effects of a changing climate which can be expressed in historic terms. This past July, we experienced the warmest global surface temperature on record, and the hottest July on record in Africa, Asia, and Europe. This summer also brought the earliest Category 5 hurricane on record, with Hurricane Beryl impacting the Caribbean, Yucatán Peninsula, and Gulf Coast of the United States. At Williams, we too are implicated in and impacted by global environmental change, and seek to respond in two main ways: by teaching students different ways of approaching, thinking through, and addressing complex environmental issues, and by modeling environmental consciousness and responsibility through our institutional actions.

This twin commitment motivated a recent structural improvement designed to better support both academic engagement with Environmental Studies as well as campus sustainability initiatives and co-curricular programming. The [Environmental Studies Program](#) has been decoupled from the former Center for Environmental Studies to become its own, stand-alone academic unit which will continue to serve as the home for the interdisciplinary Environmental Studies curriculum, including the major and concentration in Environmental Studies. And the [new Zilkha Center for the Environment](#) (ZCE) will be a hub for campus sustainability as well as co-curricular activities previously divided between the former Center for Environmental Studies and Zilkha Center for Environmental Initiatives. As an important constituent of the ZCE, the Hopkins Memorial Forest (HMF) remains a vital research and educational resource, now overseen by the [Hopkins Memorial Forest Users Committee](#), the HMF Manager, and the ZCE.

While I can't do justice to all of the environmental work pursued over the past year, below are some highlights and developments which reflect the college's advancement of environmental efforts and the dedicated work of many people across our community.

Research and Teaching

Innovative faculty research and interdisciplinary study of the environment are at the core of the college's commitment to environmental education. Faculty tackle consequential questions in their research and creative work, as can be seen from just the few examples below. And they

bring deep knowledge of the environment into the classroom, offering students the opportunity to explore challenging environmental issues through a wide array of often intertwined methodologies.

Faculty Research – A Few Illustrations

- Assistant Professor of Biology [Allison Gill](#) has been awarded a three-year National Science Foundation grant to expand the research that she and her students have been conducting in [Hopkins Memorial Forest](#) on how soil nitrogen influences the formation and protection of soil carbon, which will help improve the accuracy of predictions about future atmospheric carbon dioxide concentrations.
- Associate Professor of Environmental Studies [Laura J. Martin](#) has received a National Science Foundation grant to examine the history of herbicides made from fossil fuels, and how those synthetic herbicides have decreased biological diversity across the globe. Professor Martin also published a chapter in an edited volume about the environmental impact of big box retail stores, titled, “[“Building Some Big-Ass Wetlands’: Big Box Retail and the Origin of Wetland Mitigation Banking.”](#)”
- Assistant Professor of Environmental Studies [Brittany Meché](#) will be investigating the history of arid lands knowledge in the 19th and 20th centuries at the University of Edinburgh, having been awarded an Environmental Humanities Fellowship from the Institute for Advanced Studies in the Humanities.
- William Dwight Whitney Professor of Biology [Heather Williams](#) and Associate Professor of Mathematics [Julie Blackwood](#) have received a three-year National Science Foundation grant to support their research into the cultural evolution of Savannah sparrow songs, including how learning and improvisation can result in both change and stability within the songs of a population.

Curriculum

- The Environmental Studies Program continues to offer a rigorous and wide-ranging interdisciplinary curriculum with considerable educational impact on students. Student interest in delving deeply into this curriculum is at historic highs, with 26 students majoring and 11 students concentrating in Environmental Studies from the Class of 2025. In the Classes of 2025 and 2026 combined, over forty students have declared majors and over twenty have declared concentrations in Environmental Studies. In the Class of 2024, five students researched and wrote honors theses, with topics ranging from assisted migration of tree species to the impact of the built environment on first-year students at Williams, and water insecurity in Los Angeles's Skid Row.
- In 2023-2024, a wide array of courses on the environment were offered across the curriculum, from Professor Sarah Jacobson’s [Introduction to Environmental and Natural Resource Economics](#) and Professor Alice Bradley’s [Introduction to Weather](#)

[and Climate](#) to Professor Anthony Carrasquillo's [Environmental Fate of Organic Chemicals](#), Professor Shawn Rosenheim's [The Nature of Nature](#), and Professor Giuseppina Forte's [Governing Cities by Design](#).

- Students in the [Williams-Mystic Program](#) participated in field experiences in coastal locations from the Gulf of Maine to Southern Louisiana, engaging with diverse stakeholders such as commercial fishermen, government regulators, and climate scientists to learn about various environmental issues. And as [announced](#) several weeks ago, the college and the Williams-Mystic Program have jointly committed to fostering the educational vibrancy and strengthening the financial sustainability of the program for future generations of Williams students.

Campus Sustainability and Co-Curriculum

Across the college, efforts to make the campus more sustainable in many and various ways moved forward as initiatives were pursued in each of the priority areas laid out in the college's [Strategic Plan](#), which identifies Sustainability (along with Diversity, Equity, Inclusion, and Accessibility) as a cross-cutting commitment.

Climate Action

- Conceptual design work continued on the Energy and Carbon Master Plan (ECMP) to [decarbonize the campus](#). Progress was made on important components of this complex project, including: planning for a campus-wide electrical upgrade (which is essential for any further campus development and electrification), and gathering information about the feasibility of geothermal wells (results from the vertical test wells were not promising, so attention is now focused on the feasibility of horizontal wells on the lower section of Cole Field). Coordination of campus decarbonization with future renovation of the dorms is ongoing; a study of residential housing renewal has recently gotten off the ground. The ECMP also continues to face hurdles, from limits to the grid's electrical capacity to the project cost, which now seems likely to exceed the original \$106 million estimate.
- The college updated its [carbon neutrality claim](#) to reiterate our commitment to be carbon neutral and to transparently acknowledge the challenges of calculating annual net greenhouse gas emissions, particularly the difficulty of measuring scope 3 emissions (indirect emissions associated with college operations other than purchased electricity).
- Two campus projects—[sustainable landscaping and college vehicle electrification](#)—were the first to be funded from revenue generated by arbitraging the college's [renewable energy certificates](#) (RECs) from our investment in the Farmington Solar Project.
- The winter shutdown yielded only modest emissions and financial savings this year, due to the relatively mild temperatures in late December.

Buildings, Landscaping, and Land Use

- The [Class of 1966 Environmental Center](#) earned Living Building certification from the International Living Future Institute at long last, having installed additional solar photovoltaic arrays and improved the water filtration system in order to meet the seven main criteria for this demanding certification.
- Having implemented a tree care program and engaged the entire community in the ongoing care of our forested areas, Williams was designated a [Tree Campus Higher Education](#) by the National Arbor Day Foundation.
- The [Williams College Museum of Art](#) (WCMA) was awarded a grant from the Helen Frankenthaler Foundation to help make the new building's heating, ventilation, and air conditioning system as energy efficient as possible. The museum project aims to meet an ambitious energy use intensity target for Living Building core certification, despite the disappointing finding from vertical test wells that geothermal is not feasible on this site.

Community, Diversity, Equity, and Inclusion

- The Zilkha Center for the Environment and the Davis Center partnered again this year to offer the Root orientation program for first-year students, introducing them to the campus and the area through the lens of sustainability, identity, and environmental justice. Highlights included attending the Iroquois Arts Festival in Howes Cave, going to Wild Soul River in Williamstown, and visiting the Radix Ecological Sustainability Center in Albany.
- Through the [Community Climate Fund](#), the college continued to invest in local carbon reduction projects such as removing roadblocks for home weatherization and supporting a revolving farm loan for renewable energy installations.

Responsible Consumption

- Williams signed the [Break Free From Plastic pledge](#) to move the campus away from the use of single-use plastics, specifically to eliminate most non-essential, non-compostable, single-use disposable plastics by July 2025.
- [Compost bins](#) were added at a number of locations around campus, from the Eco Café to the main foyer of Sawyer Library.
- Dining Services hosted its first Plant-Rich Carbon Reduction Food Expo during Earth Week and has expanded [plant-rich menu options](#), putting their training by the Culinary Institute of America into action.

Accountability and Transparency

- A few administrative departments made progress on their [departmental Sustainability Action Plans](#), with the Office for Information Technology and WCMA completing their respective plans.

The creation of the Zilkha Center for the Environment has consolidated co-curricular programming under its umbrella, to make the abundance of opportunities clearer to students. Going forward, these co-curricular activities can be found in, and will be supported by, the ZCE.

- Last summer, many students pursued [internships at organizations](#) such as the National Transmission & Dispatch Company of Pakistan, the Institute of Public and Environmental Affairs in Beijing, and Many Forks Farm in Clarksburg. This past summer, [student interns on campus](#) worked on facilitating sustainable purchasing, creating First Days programming, and improving the [campus sustainability dashboard](#).
- Students worked with Williams faculty to conduct research with real-world impact through the [Environmental Justice Clinic](#).
- The much-loved Log Lunches included talks on topics ranging from the Massachusetts Community Climate Bank and climate change law to urban gardens and affordable renewable energy.

As this long but incomplete list of our environmental and sustainability efforts suggests, we continue to advance environmental knowledge and action in ways best suited to our educational mission. Even as we may encounter challenges, we remain deeply committed to the collective work of confronting the complex environmental questions and issues of our time.

Yours sincerely,

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Provost and Charles R. Keller Professor of History