



GRAHAM  
SUSTAINABILITY INSTITUTE  
UNIVERSITY OF MICHIGAN



# Graham Sustainability Institute

# 2015

Annual Report

# About the Institute

The Graham Institute systematically integrates talent across the University of Michigan, and partners with external stakeholders, to foster collaborative sustainability solutions at all scales. Our work focuses on three key areas:

## Translational Knowledge

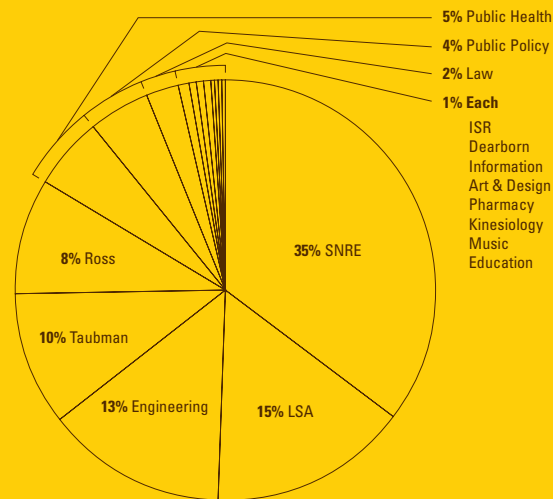
We lead vibrant collaborations of academics, practitioners, and other stakeholders to advance sustainability scholarship and influence real-world decisions.

## Transformative Learning

We cultivate sustainability leaders by helping students engage across disciplines, appreciate diversity, think systemically, and pursue action-based learning worldwide.

## Institutional Leadership

We propel sustainability excellence throughout the University of Michigan by planning, coordinating, and administering university-wide sustainability strategies and activities.



Distribution of FY15 Graham Support by U-M School and College

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University of Michigan Faculty & Students  
Supported Financially in 2015



# From the Director

As Graham begins its 10th year, we are thinking a lot about our evolution, and strategies to maximize positive impact in our second decade. To inform our planning, we enlisted a third-party, independent evaluator to assess the impact of our work. Drawing on extensive stakeholder surveys and interviews, the assessment concluded that all Institute programs are very successful. It was satisfying to receive this validation, but we recognize that our work has just begun, and there is far more to do. In the year ahead, we will continue to draw upon learnings from the assessment and ongoing conversations with stakeholders to define key attributes and priorities for our future work.

We also accomplished a lot in the past year. We completed the most extensive study ever undertaken on Hydraulic Fracturing in Michigan, which involved U-M experts, government officials, the oil and gas industry, and environmental non-profits. We continued to support and facilitate a wide array of projects focused on restoring and protecting U.S. estuaries and the Great Lakes, including producing a model simulating impacts of a potential pipeline leak in the Straits of Mackinac that helped spur a wide range of efforts to mitigate these risks. We also received significant new funding commitments: \$3.3 million from the Erb Family Foundation to support work focused on green infrastructure and phosphorus inputs to the Detroit River and Lake Erie; and \$3.65 million from NOAA to continue our climate adaptation work throughout the Great Lakes region.



In the past year, the highly competitive learning programs we administer supported 135 fellows – undergraduate through post-doc – who expanded their perspectives and skills through discussions and collaboration across dozens of academic disciplines. We also enlisted Professor Andy Hoffman to further strengthen and integrate these co-curricular education programs going forward. Finally, through my role as Special Counsel to President Schlissel, we co-led an effort that brought together working groups of nearly 50 faculty, staff and students to recommend pathways for achieving the University's 2025 campus sustainability goals. We also led U-M's participation in the AASHE STARS program, through which U-M achieved a gold rating.

In short, it has been a banner year due to our staff, U-M students and faculty, advisors, partners, and our generous financial supporters. Thank you all, and enjoy the report!

—Donald Scavia

# Water

Through our Water Center, we develop science-based policy and management solutions for critical water resource issues. We do this by integrating decision makers and end-users throughout the process to ensure high-quality, science-based products that have practical applications. We also design and implement innovative grant making processes that support collaborative research throughout the nation.

## ACCOMPLISHMENTS

Our annual meeting provided an opportunity for research teams to hear from a range of end users (e.g., agencies and non-governmental organizations). These stakeholders articulated needs and decision-making challenges, and described how project outputs will be used. Outputs include:

- A tool enabling Great Lakes decision makers to: (1) strategically allocate funds for dam removals and road culvert repairs throughout the region; and (2) target projects that maximize benefits for stream habitat and native fish species, while minimizing risk of invasive species spread.
- Evaluation criteria for managers of publicly-funded habitat programs to evaluate both landowner and site suitability, maximizing the likelihood of project success.

- Digitization of environmentally sensitive geo-spatial information in the western basin of Lake Erie, enabling spill responders to plan, prioritize, deploy, and update responses on-the-fly.
- Measurement of over-lake evaporation to support bi-national management of water levels in Lakes Superior and Ontario, and improved lake level forecasts, supporting decision makers along Lakes Michigan-Huron and Erie.

## CONTINUING EFFORTS

In the past year, Professor Maria Carmen Lemos led an evaluation of the projects we support and our project management efforts. We are now working to incorporate the findings (below) into ongoing projects.

- *Engagement contributes to increased understanding of one another's cultures and constraints.* Our stakeholder engagement approach allows scientists and project teams to identify and establish relationships with end users.
- *Boundary organizations have a role in encouraging more engagement among producers and users of information.* Researchers and end users are often not



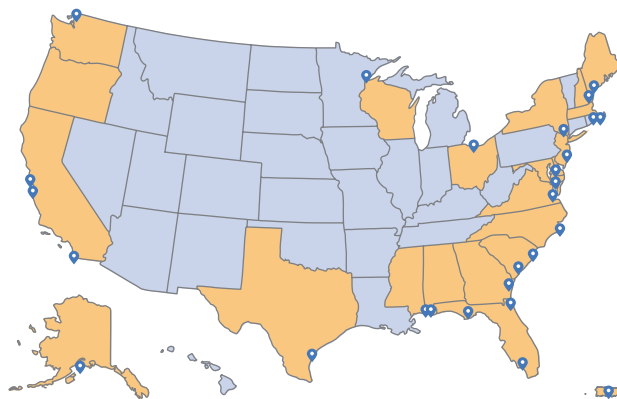
equipped to overcome cultural barriers that can exist between academics and government agencies or non-government organizations. Our facilitation helps navigate these barriers and incentivize both sides to collaborate.

- ***Time and resource constraints are significant barriers to effective engagement.*** Collaboration requires a substantial commitment of time and skilled personnel to support the right level of communication between the producers and users of knowledge.
- ***Developing a description of end users early in the project is critical for success.*** Teams that understand who will use their project outputs are typically more successful in producing usable science. The evaluation team developed a tool to help research teams identify end users with whom to connect, for what purpose, and when.

Last year, the Water Center also began managing NOAA's National Estuarine Research Reserve System's Science Collaborative. This 5-year, \$20 million program supports collaborative research and science transfer projects that improve coastal management throughout the nation.

## Key Impacts

- Reestablished U-M as a leader in Great Lakes research by engaging 60 U-M researchers, 55 institutions, 22 agencies and 22 universities in our work to over the past three years
- Project outputs, such as a tool that allows decision makers to visualize geo-spatial information to support investments in habitat protection, restoration and enhancement, are immediately usable by engaged end users.



NERRS, a network of 28 reserves, includes more than 1.3 million coastal and estuarine acres, in 22 states and Puerto Rico. The Water Center coordinates the NERRS Science Collaborative.

60  
University of Michigan Researchers  
Engaged in Projects

# Climate

Our Climate Center brings together faculty, students, and external partners to assess climate change impacts, improve the accessibility of climate information, guide adaptation efforts, and assist in training the next generation of applied climate scientists to bridge science and practice.

## CENTER HIGHLIGHTS

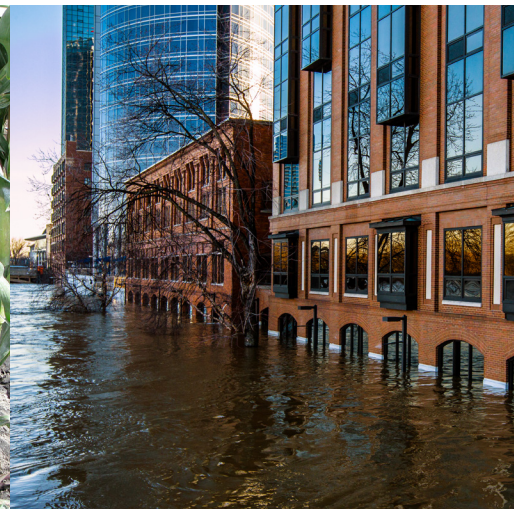
*GLISA Renewal* – We are pleased that NOAA renewed the Great Lakes Integrated Sciences and Assessments (GLISA) program, a multi-million dollar component of the Center, for another five years. This collaboration between U-M and Michigan State University links physical and social scientists with regional practitioners to guide and improve how institutions and organizations adapt to climate change.

*Understanding Climate Science-adaptation Interface* – A special issue of the *Journal of Climate Risk Management*, highlighted key findings from our engagements with ravine and watershed managers, municipal staff, and elected officials. It emphasized that higher levels of trust and reliance between partners speed the co-production of knowledge; improve information dissemination and literacy; and enhance resilience.

*Understanding Climate Adaptation Networks* – We found that cultural differences at national and local levels can affect how adaptation network members interpret climate-induced changes. For example, Canadian members tend to be more concerned about falling lake levels than their US counterparts. We also discovered that the uncertainty of key information gets lost as the information moves from its original source through the network.

*Urban Adaptation* – We continued our groundbreaking work engaging cities as boundary organizations to connect climate science with their stakeholders. Examples include:

- Through our partnership with Macalester College we learned how low-income communities in Saint Paul, MN characterize adaptation needs, and who should be responsible for providing resources. We identified a need for matched education on climate adaptation, at both city and neighborhood levels.
- Working through the Great Lakes and Saint Lawrence Cities Mayors Initiative, we collaborated with public and private partners in Gary, IN, to incorporate climate data into a replicable protocol for cities to evaluate the vulnerability of critical infrastructure to climate change.



- We worked with New York Sea Grant to imbed climate information in Lake Ontario's Lake Management Plan. This qualitative scenario planning informs decision making and reduces the impact of uncertainty when applying future climate models.

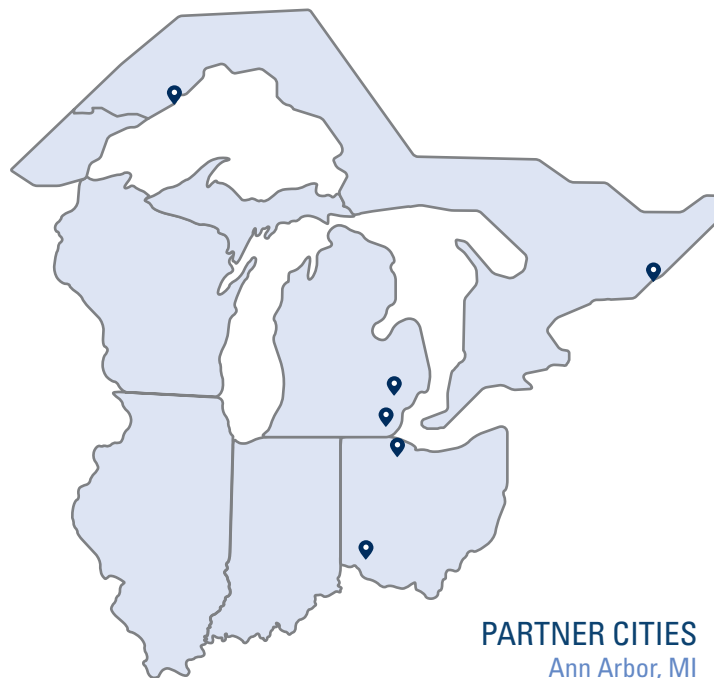
**Agriculture Adaptation** – Working with our Water Center, U-M climate scientists, and farmers, we demonstrated that climate change should be included in land management actions when testing the effects of alternative management practices to reduce phosphorus run-off into Lake Erie.

**Tribal Engagement** – Our support for students, faculty, and staff to engage in tribal climate adaptation planning provided new insight for the tribes about how climate will impact critical cultural and economic resources. It also improved understanding of how the scientific community can integrate traditional ecological knowledge in respectful and complementary ways.

**Training the Next Generation** – We provide opportunities for practitioners to engage with Applied Climate Masters Students at U-M's College of Engineering. Examples include investigating relationships among severe precipitation events, storm damage costs, and stormwater systems; and improving access to information about fluctuating Great Lakes water levels.

### Key Impacts

- Connected more than 1,200 external stakeholders with faculty and staff to share climate resources and new approaches for integrating research into decision making.
- Web users logged more than 5,400 extended visits with the Climate Adaptation Tool and more than 8,000 visitors accessed the Climate Atlas.
- Our six partner cities are now seen as climate adaptation exemplars, providing leadership for additional cities.



### PARTNER CITIES

- Ann Arbor, MI
- Flint, MI
- Toledo, OH
- Dayton, OH
- Kingston, ON
- Thunder Bay, ON

1200  
External Stakeholders Connected to  
U-M Faculty & Staff

# Integrated Assessment

In partnership with other campus units, we apply a proven methodology that engages faculty, students, and stakeholders to analyze policy and management options and develop decision support tools that help solve real-world problems. Through this work, we facilitate collaboration among interdisciplinary research teams and practitioners on a variety of sustainability topics.

## PROJECTS

### *Hydraulic Fracturing in Michigan*

We led a unique partnership involving ten U-M units to provide options for the State of Michigan and others to consider. Key outputs include seven detailed technical reports and a final report, developed by U-M researchers. Michigan Governor Rick Snyder credited the project with helping the State identify opportunities for “strengthening water protection and providing the public with more information.”

### *Gold Mining in Ghana*

A research team from Public Health and LS&A assessed how gold mining may be done in ways that maintain ecological and human health, without hindering economic prosperity. Options developed addressed public health issues; informed policies in Ghana;

and strengthened the network of researchers, policymakers, government officials, and others, such as the United Nations Environment Program.

### *Water Contamination in Peru*

A team from the schools of Medicine and Public Health focusing on gastric cancer and bacterial infection in Lima, confirmed that *H. pylori* is present in water samples from homes of infected patients. Policy options were presented to decision makers, including representatives from the Ministry of Health. Priorities included household water treatment systems and a risk assessment, as well as training and technical guidance. Key outcomes include working with local partners to develop a monitoring program to detect *H. pylori*.

### *Adapting to Great Lakes Water Level Variability*

Research teams are examining policy and management options to increase the ability of individuals and organizations to adapt to Great Lakes water-level fluctuations. Seven research teams from 16 U.S. and Canadian universities engaged coastal residents, businesses, and government officials affected by issues. Selected research teams will continue their work in 2016.





## FUTURE ASSESSMENTS BEING CONSIDERED

- **Addressing the Impacts of e-Waste:** Electronic waste grew from 19.5 million metric tons in 1990 to 57.4 million metric tons in 2010, and continues to increase. With a team from Public Health, we are developing this effort with input from the electronics/IT industry and others.
- **Reducing Arsenic Exposure:** In Bangladesh, approximately 78 million people are exposed to arsenic through groundwater, with many developing cancer. We are working with a team from Engineering and SNRE, and with organizations in Bangladesh to understand needs and identify strategies for treating and delivering safe drinking water and food.
- **Rationalizing the Food-Energy-Water Policy Nexus:** Society faces a set of complex challenges concerning increasing demands for food, energy, and water. We are facilitating discussions on this topic with faculty from Public Policy, Public Health, Law, SNRE, and the Energy Institute.

## Key Impacts

- Systematically integrating talent across the University to tackle real-world challenges, with 10 interdisciplinary projects involving 16 U-M units, 72 faculty, and 127 students executed since 2009.
- Significant scholarly contributions include more than 50 journal articles and book chapters produced by those researchers involved.
- Last year (FY 2015) we collaborated with 66 external partners (government, industry, non-profit, and academic) across 6 different projects.



Journal Articles & Book Chapters  
Produced by Involved Researchers

“The greatest strength (of the IA Program) is its ability to bring many people from diverse locations, disciplines, and roles into common discussion and collaboration for common goals.”

—Grantee

# Dow Sustainability Fellows

Dow Fellows explore sustainability topics through rich interactions with their students colleagues, faculty, and others. The program has now drawn participants from 89% of U-M's schools and colleges. No other program compares in terms of size and diversity across disciplines and academic levels. Made possible by the Dow Chemical Company and administered by the Graham Institute, this University-level program is a successful and innovative learning platform for masters/professional, doctoral, and postdoctoral participants.

Cohorts interact on a regular basis through a variety of events, including monthly seminars and an annual symposium. These activities provide a venue for all fellows to showcase their work, foster new connections and collaborations, learn from prominent sustainability leaders, and practice presenting their work to interdisciplinary audiences.

Dow Fellows are involved in projects that span a variety of topics, including: Climate Adaptation, Automated Vehicles, Agriculture, Floodplain Management, Solar Generation Policy, Green Infrastructure in Detroit, Water Conservation in California, Energy Entrepreneurship in Guinea, Forest Governance in Indonesia, Climate Change Impacts on Forests, Biofuels and Water

Quality, Air Pollution and Adverse Birth Outcomes, Onshore Wind Development, Wastewater Treatment, Oil Pricing Scheme Design, Slum Redevelopment, and Water Decontamination in China.

Open to all students across the campus, the Distinguished Awards competition supports interdisciplinary teams, composed of students from at least three distinct U-M units, to pursue collaborative sustainability solutions projects. The two-stage award structure provides greater access to funding for students across the university, while broadening the range of project topics being supported.

## KEY IMPACTS

- Program is effectively integrating talent across campus with 17 of 19 U-M schools and colleges participating to date.
- Training and support provided for 78 masters, doctoral and postdoctoral fellows in FY15.
- 340 current participants and alumni to date have gained collaboration and interdisciplinary thinking skills to foster professional success.



- \$150,000 supported 15 teams in the past year, allowing 183 U-M students across 41 academic programs to pursue real-world sustainability projects.
- Three teams received large grants totaling \$75,000 to advance their on-the-ground projects, which focused on household water storage system development in western India, community-based aquaponics in rural El Salvador, and de-silting irrigation ponds in southern India.

## CONTINUING EFFORTS

The Dow Fellows program has significantly increased graduate student opportunities for sustainability study, intellectual exchange, and action. Efforts continue to ensure campus-wide participation of students and faculty spanning STEM, social science, and humanities disciplines. Going forward, we will be enhancing opportunities for collaboration across the Dow cohort levels, and with undergraduates, which will be aided by the recent appointment of Professor Andy Hoffman as the Institute's Education Director.

## MICHIGAN JOURNAL OF SUSTAINABILITY

Managed by Dow Fellows, this free, online journal offers a variety of sustainability content targeted toward practitioners and policy makers. With support from the Graham Institute, issues of the journal are published through the U-M Library's M-Publishing. Content focuses on three areas: sustainable freshwater systems, livable communities, and responses to climate variability and change. Through this effort, Dow Fellows learn how to manage a peer-reviewed journal, including reviewing submissions, working with authors, and ensuring that content is innovative and informative. Fellows also gain important experience writing and publishing in a scholarly journal. Dow Fellows are using this effort to translate sustainability knowledge to those who can apply it.

### Key Facts

- To date, three issues and 32 articles have been published.
- Journal readers logged more than 8,000 extended visits in the past year.

**340**  
Current Participants & Alumni Engaged

**“The Dow Fellowship helped me deepen my commitment to urban sustainability and better understand how I can positively make a change in a critical industry.”**

*—2014 Masters Fellow*

# Graham Sustainability Scholars

Open to top-performing U-M undergraduates, the Graham Undergraduate Sustainability Scholars program engages students in action-based learning and co-curricular activities that foster systems thinking and leadership development for sustainability. In FY15 the Scholars program, supported 57 students across 29 academic programs.

## PROGRAM EFFORTS

### *Seminars*

Two core seminars, *Systems Thinking for Sustainability* and *Sustainability Leadership Development*, continue to evolve using engaged learning methodologies focused heavily on personal exploration and skills development.

### *Co-Curricular Activities*

We provided an array of activities designed to encourage interactions among student colleagues, faculty and others. For example:

- Incoming Scholars began the program and started connecting with one another at the third annual camping orientation at Sleeping Bear Dunes National Lakeshore.
- Our annual U-M Challenge Program outing focused on identifying individual leadership strengths and weaknesses.
- A new winter retreat at the U-M Biostation provided an opportunity for students to strengthen connections before ending the school year and departing for summer.

- The “coffee with practitioners” series included 10 sustainability professionals (e.g., entrepreneurs, researchers, government leaders, corporate sustainability managers, and community activists) for informal discussions and networking.
- Scholars also participated in several dinner discussions focused on sustainability issues.

### *Alumni*

We are also maintaining connections with our 94 program alumni through a newsletter, a LinkedIn group, and alumni panel discussions with current program participants.

## KEY IMPACTS

- Effectively integrating undergraduate talent across U-M, with 29 distinct majors represented among FY15 Graham Scholars.
- Exit surveys indicate that graduates are confident in their skills in leadership methods, interdisciplinary approaches to sustainability, and collaborative and professional skills.
- Graduates rate the program as being particularly strong in broadening their educational experience, increasing the diversity of people with whom they interact, and expanding the range of sustainability issues explored.

**“The Scholars Program has played a critical role in my growth as a sustainability leader... It has increased my confidence in my ability to make a real difference.”**

*—2015 Graham Sustainability Scholar*

## Academic Programs Represented in FY15

- Anthropology
- Art and Design
- Business
- Civil & Environmental Engineering
- Communication Studies
- Earth and Environmental Sciences
- Ecology & Evolutionary Biology
- Economics
- Electrical Engineering and Computer Science
- English Language & Literature
- Germanic Languages & Literature
- Honors Program
- International & Comparative Studies
- Mathematics
- Mechanical Engineering
- Molecular & Cellular Biology
- Music, Theatre & Dance
- Organizational Studies
- Philosophy
- Physics
- Political Science
- Program in The Environment
- Psychology
- Public Policy
- Residential College
- Romance Languages & Literature
- Social Theory & Practice
- Statistics
- Urban Studies

## Planet Blue Student Innovation Fund

This program provides grants of up to \$50,000 for innovative, transformative, and visible sustainability projects on the U-M campus. Leaders of the Student Sustainability Initiative manage this annual competition, with preference going to projects that actively engage students, accrue economic payback, and facilitate partnerships across campus.

### PROGRAM OBJECTIVES

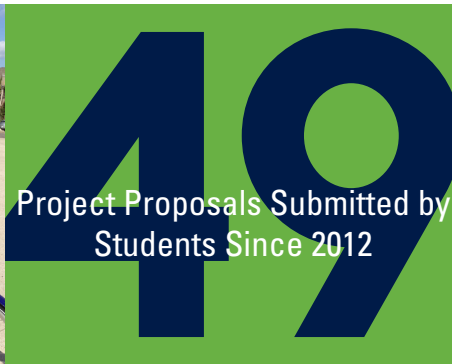
- Achieve actionable progress toward U-M's sustainability goals.
- Engage the U-M community by promoting behavior change and environmental awareness.
- Spark new ideas from U-M students, broadening the definition of sustainability.
- Connect campus leaders with people and resources to accomplish proposal goals.

### KEY IMPACTS

- Empowering students across campus to envision and initiate campus sustainability projects, with \$192,000 awarded since 2012, including 49 project proposals submitted by students, from nine U-M school and colleges.

### NEW PROJECTS

- ***Rainwater Catchment System***  
\$5,000 to implement a system at the U-M Campus Farm to promote sustainable agriculture and campus collaboration. Designed by BLUElab students, the system was previously implemented by the group for a project in Nicaragua.
- ***Medical School Therapy Garden***  
\$8,500 to provide a sustainable, experiential learning garden that engages the medical campus and local community in the practices of gardening, nutrition education, food security, and overall health and wellness.
- ***Campus to Campus Bicycle Wayfinding***  
\$10,000 to improve legibility, visibility, navigation, and education of biking on campus. Partnering with U-M and the Washtenaw Bicycling and Walking Coalition, the team seeks to develop a visible bikeway between Central and North Campuses.
- ***Student Engagement in Football Stadium Recycling Program***  
\$20,000 for a volunteer program, which includes support for a volunteer coordinator, vests for coordinator and volunteers, and student group incentives for volunteering. The grant was matched with \$23,500 from Athletics to upgrade bins and signage.



Project Proposals Submitted by  
Students Since 2012



## Planet Blue Ambassadors

Approximately 1,000 individuals completed the Planet Blue Ambassador online certification training this past year. Ambassadors come from every area of campus, including the Health System, Student Life, Facilities and Operations, Finance, and all U-M schools and colleges.

### PROGRAM ACTIVITIES

In the past year, we updated our online “Dashboard” platform to track the impact of Ambassadors’ sustainability actions. In addition, we participated in a number of events, including new student and faculty orientations, to recruit potential new Ambassadors and provide information about U-M sustainability goals and actions. We also hosted the first *Earth Month Challenge* in April, with Planet Blue Ambassadors recruiting participants and creating teams that competed for the most sustainable actions and those with the greatest impact.

### KEY IMPACTS

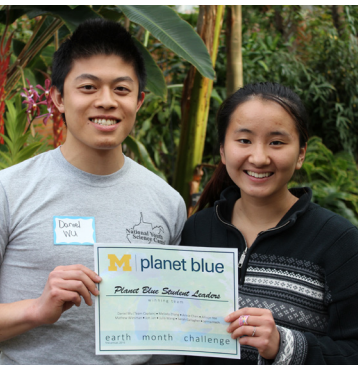
- More than 2,200 U-M faculty, students, and staff are now certified Ambassadors, helping the campus community to walk the talk of sustainability.
- Ambassadors have completed 17,000 action pledges, reducing 5 million pounds of greenhouse gas emission reductions, preventing 247,000 pounds of landfill waste, and saving 5 million gallons of water.

## Planet Blue Student Leaders

Through this partnership with Student Life, students living in U-M Housing served as peer-to-peer sustainability advisors and participated in an experiential-learning seminar each semester. Participating students, from LS&A, the College of Engineering, and Stamps School of Art & Design led the *Kill-a-Watt* and *RecycleMania* programs within the residence halls. Student teams also conducted “small experiments” to investigate and implement food waste reduction techniques in U-M Housing.

### KEY IMPACTS

- 24 students were trained to engage and educate their peers using science-based behavior change techniques.
- Michigan Dining is applying the results of student efforts, and continuing to reduce food waste, including piloting post-consumer composting.



# Measuring the Culture of Sustainability

According to Sustainability Cultural Indicators Program (SCIP), the U-M community has become more knowledgeable about sustainability since 2012. SCIP is a multi-year project, co-designed and implemented with the Institute for Social Research, to track the culture of sustainability on the U-M Ann Arbor campus.

## KEY IMPACTS

- Annual meetings with U-M operations staff provided a forum to discuss survey results and generate ideas to advance progress of the campus sustainability goals.
- More than 100 other institutions have requested copies of the survey instrument
- Three book chapters and three journal articles on SCIP have been produced.
- SCIP has been accepted as the focus of presentations at 12 major conferences.
- Since 2012, more than 16,500 faculty, students and staff have participated in the survey.

**“I have found that many faculty, staff members, and students across the University deeply care about sustainability issues and would like UM to be a strong leader.”**

*—UM Faculty member*

## CLIMATE ACTION

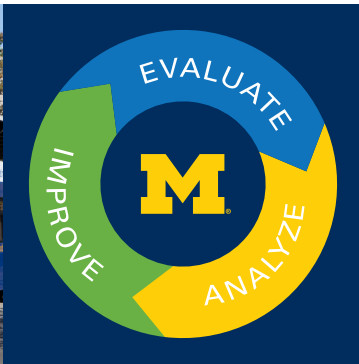
### CONSERVATION BEHAVIOR



### TRAVEL BEHAVIOR



The *SCIP Indicators 2014 Highlights* includes information about the awareness, attitudes, and behavior of students, staff and faculty (sample indicator above).



## Presidential Committees

In October 2014, U-M President Mark Schlissel asked the Graham Institute to co-lead a Working Group process to review three of the University's 2025 Campus Sustainability goals: Greenhouse Gas Reduction, Landfill Waste Reduction, and Campus Culture.

To include a broad range of perspectives, each Working Group was co-chaired by a senior staff member with relevant day-to-day operational responsibilities and a faculty member with significant relevant expertise. The Working Groups collectively included approximately 50 students, faculty, and staff spanning the breadth of the campus (see sidebar).

Working groups began deliberations in November 2014 and met throughout the school year to:

- Review current activities and their impacts on goal progress.
- Identify potential options (e.g., technical, behavioral, political) for making significant progress toward achieving the goal.
- Develop a high-level plan for achieving the goals to:
  - Analyze strengths, weaknesses, opportunities, and threats
  - Identify internal and external conditions that may impede progress;
  - Propose options to meliorate impediments; and
  - Propose an ongoing role for faculty/staff/student working groups around the goals.
- Evaluate the aggressiveness of current goal and propose any suggested changes.

The Working Groups finalized their reports and presented recommendations to President Schlissel in the summer of 2015.

### UNITS REPRESENTED

- Athletics
- Business & Finance
  - Office of Campus Sustainability
  - Plant Operations
  - Procurement
- College of Architecture and Urban Planning
- College of Engineering
- College of Literature Science & the Arts
- Global Communications
- Office of the Provost
  - Graham Sustainability Institute
  - Institute for Social Research
  - Matthaei Botanical Gardens
- Office of Research
  - Energy Institute
- School of Business (Ross)
- School of Information
- School of Natural Resources & Environment
- School of Public Health
- School of Public Policy (Ford)
- Student Life





## AASHE STARS

During the past year, we partnered with U-M's Office of Campus Sustainability to lead an information and data collection effort for U-M's second submission to the Association for the Advancement of Sustainability in Higher Education's Sustainability Tracking, Assessment & Rating System (STARS). Spanning academics, engagement, administration, and operations, STARS is the standard for evaluating the sustainability performance of North American colleges and universities. Due largely to efforts launched and led by Graham Institute over the past three years, U-M's STARS rating jumped from Silver to Gold, putting U-M among the top 10% of the more than 800 institutions participating in the program.



## Sustainability Directors Forum

In the summer of 2014, we first convened the directors of 12 university-level, interdisciplinary sustainability institutes representing some of the leading academic research institutions in the United States. This group has since met face-to-face on two additional occasions and plans to continue these conversations on a semi-annual basis. The purpose of the forum is to share best practices and identify opportunities where we can work together to foster even greater impact. Forum members are currently developing a concept paper, based on our collective experiences, on how to integrate disciplinary strengths from across complex universities and engage with stakeholders outside the academy to help solve pressing sustainability challenges.

### FORUM MEMBERS

- Brown University
- Cornell University
- Duke University
- Johns Hopkins University
- Northwestern University
- Pennsylvania State University
- Stanford University
- University of Arizona
- University of California-Los Angeles
- University of Michigan-Ann Arbor
- University of Minnesota-Twin Cities
- University of Wisconsin-Madison



## 3rd Party Institute Evaluation

During the past year, we commissioned an external evaluator to survey and interview partners, advisors, and other stakeholders to assess their views on our work and the value it creates. Evaluation results were very favorable and will be extremely helpful to inform ongoing strategic planning efforts.

### SURVEY

An email survey was sent to over 7,000 individuals affiliated with the Institute over the past decade. More than 700 complete responses were received, resulting in statistically significant representative samples across all affiliation categories.

### INTERVIEWS

Individual interviews were conducted with 34 leaders, including members of the External Advisory Board, Dean's Council, Executive Committee, and other internal and external partners. The interview protocol consisted of seven questions to assess strengths and opportunities.

### Commonly cited attributes included:

- Draws experts and students across schools and units to contribute.
- Appreciation for the coordination role and interdisciplinary nature.
- Increased visibility, both on campus and externally, over the past few years.
- Research projects are seen to be increasing in impact.
- Students are attracted to the initiatives and are doing great work.

### Commonly cited opportunities included:

- Clarify roles and continually strengthen working relationships with academic units.
- Strike an appropriate balance between Institute-initiated and faculty-initiated projects.
- Clarify and measure program participant objectives across all activity areas and assess success annually.

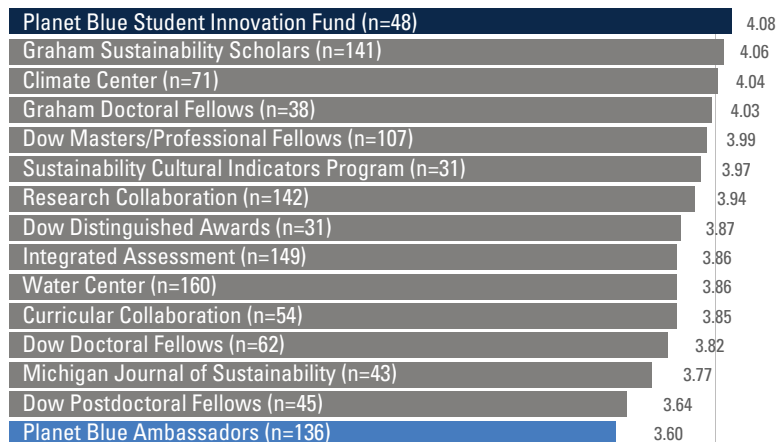
### NEXT STEPS

Drawing on findings from the evaluation, we will continue to engage with internal and external stakeholders during the coming year, to develop a strategy that guides our work into the next decade.

## Usefulness of Activities

Respondents indicated the usefulness of each activity in which they engaged on a scale from 1 = not at all useful to 5 = extremely useful

All activities were rated very useful



# 2015



The Graham Sustainability Institute systematically integrates talent across the University of Michigan and partners with external stakeholders, to foster collaborative sustainability solutions at all scales. The Institute is supported by individuals, corporations, foundations, government agencies, and the University of Michigan. See: [www.graham.umich.edu](http://www.graham.umich.edu)



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NONDISCRIMINATION POLICY STATEMENT

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