



# **Report for President Schlissel from the Committee on the Culture of Sustainability at the University of Michigan**

## **Committee Team**

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## EXECUTIVE SUMMARY

U-M leads comprehensive efforts in sustainability research, education, campus operations and engagement. This work is interconnected and takes place locally and globally, tackling some of the most complex sustainability issues. And yet, our sustainability efforts are not as well recognized as they could be, internally or externally. To achieve the university's specific operational and reputational goals, we must encourage deeper engagement and develop widespread, visible support for a culture of sustainability.

According to the goals and principles set forth in the 2011 [Campus Sustainability Integrated Assessment \(CSIA\)](#), we aim to pursue stakeholder engagement, education, and evaluation strategies toward a campus-wide ethic of sustainability. By 2025 we expect to have created a vibrant culture focused on sustainability, to have educated our community on environmental stewardship, promoted environmental behavior, regularly tracked outcomes of our efforts, and reported on our progress over time.

As a result, the Culture Committee convened this year to determine how best to improve the campus culture of sustainability—beyond changes to engineering or waste disposal. We sought to foster a campus climate that demonstrates and promotes active sustainability engagement at U-M.

Over the past seven months the Culture Committee developed a broad set of recommendations, divided into four major categories: **Major Statements, The Living-Learning Community, Infrastructure & Policy, and Communications.**

Within each of these four areas our recommendations were prioritized based on the extent to which they would have a major impact on sustainable campus behavior as well as our position as a leader in sustainability, recognized by casual campus visitors, peer institutions, the national media, and the world. Recommendations were designed to synergize with other U-M goals such as increasing community health and well-being, promoting active learning and experimentation, and assisting and engaging underrepresented groups. We aimed to raise the level of engagement of all people, by educating and designing systems for uninformed individuals so that they can enact sustainable habits (e.g., recycling, waste prevention) while providing interested and passionate individuals with substantive opportunities for leadership and innovation.

Our recommendations are summarized in the table below. We need a salient, large-scale campus feature on each part of campus that demonstrates the U-M commitment to sustainability, educates visitors, enhances well-being, and showcases novel solutions. We must continue and enhance support of student experimentation through research and projects that increase sustainability and test novel solutions. We need to redesign waste receptacles so that proper waste diversion requires no special knowledge or planning with uniform, intuitive bins across campus. Departments should be incentivized and assisted with making sustainable purchasing and catering plans (e.g., training, peer mentoring, awards, increased industrial composting). Maximizing the potential of these solutions requires a well-designed, branded messaging and communications effort that highlights new features, educates users, and advertises successes locally and nationally. We also recommend continued support of current sustainability initiatives ([Appendix A](#)). In combination, these changes ensure that our campus community not only acts sustainably, but also understands why it matters, all the while being exposed to and participating in our cutting-edge research.

**By the year 2025**, we expect to increase indicators, as measured in annual SCIP surveys, in conservation behaviors, waste prevention behaviors, and rating of U-M initiatives by 25% as well as doubling the sustainability engagement at U-M indicator. In addition, our Communications Team expects to measure a rise in national status as a sustainable campus to the top three of one or more national rankings and to increase the number of national news and social media mentions by 50 percent. *It will be important, however, as a truly innovative university to mindfully and flexibly change U-M policies and recommendations as needed to keep up with the dynamic nature of knowledge about sustainability best practices.*

### Summary Table of Priority Recommendations

Description of Proposed Action	Expected Contribution to Overarching Goal	Challenges and/or Concerns Associated with Implementation	Back-of-Envelope Cost Estimates* (Capital, Operating, & Payback if any)
<b>Major Statements</b>			
Establish zero waste athletics; support program to educate fans and advertise effort while reducing waste (South Campus)	Reduce landfill, teach sustainable procedures to campus users; display U-M commitment; Beat OSU	Operational challenges and cost for implementation and annual program	\$225K/yr annually. Costs higher for initial infrastructure changes; maintenance only thereafter
Build a Net Zero building as a living-learning lab and incubator for ideas and technology (North Campus)	Encourage experimentation in sustainable design; educate visitors; display U-M commitment	Location TBD (North Campus/Stadium area). Significant capital investment to build and support ongoing experimentation to foster Living-Learning	Depends on implementation
Redesign significant Central Campus outdoor space to showcase sustainable landscaping, creating more inviting green spaces and reducing negative impacts (Central Campus)	Showcase sustainability landscaping; educate visitors; reduce toxins; preserve Huron River; display U-M commitment	Selecting area that is clearly visible to users and abided by the Regents.	Up front costs to redesign and restructure, but long-term reduction in maintenance and fertilizer fees.
<b>Living-Learning Community</b>			
Increase support for living-learning projects to support experimentation and active, meaningful education; supporting a dedicated L-L coordinator	Educate and engage students; promote cutting-edge solutions; display U-M commitment	Coordinating many subgroups/projects while maintaining dynamic, open processes that promote innovation	\$50,000 + fringe for living-learning lab coordinator
Long-term, stable support for major student-led sustainability initiatives	Provide opportunities for students to build their academic experience and skills to be future sustainable leaders while maintaining effective programs	Stable, long-term funding for established student-led initiatives	Stable funding for successful, large scale student funding like UMSFP (including full-time coordinator)
Initiate an Environmental Community Program within University Housing	Provide meaningful L-L opportunities to engage students; support innovation	Finding location with opportunities for planting, accessibility (e.g., Hoover St or Oxford Housing to tie in with Arb)	\$32,840-\$103,400

Infrastructure & Policy			
Implement uniform and consistent recycling bins and signage	Reduce recycling and compost in landfill by 40% percent by 2025; display U-M commitment	Cost of new bins, designing no-think labels	See waste committee recommendations
Establish industrial composting for participating zero-waste events departments and Dining Services to compost food and compostable ware	Reduce landfill; teach sustainable procedures to campus users; display U-M commitment	Incentivizing departments to participate	See waste committee recommendations
Provide transit access to all Ann Arbor Campus locations, particularly those supporting active L-L opportunities	Support sustainability research and education, reduce carbon emissions from single-drivers	Added cost for service to new locations	Depends on implementation
Institutional support for sustainable procurement (avoiding plastic water bottles, one-time-use disposables, excessive packaging)	Reduce landfill, teach sustainable procedures to campus users; display U-M commitment	Redesign purchasing websites to prioritize compostables, recycled content	Small up-front cost to redesign procedures; long-run savings
Communications			
Establish Presidential Sustainability Awards to recognize sustainability accomplishments and encourage innovative ideas, especially from staff	Display U-M commitment; Incentivise users to increase sustainability	Establishing effective levels of funding, review, and visibility	Low cost, high impact
Utilize messaging through the President and other campus leaders	Display U-M commitment from the top-down	Ensuring messages are readily accessed.	Low cost, high impact
Establish a Planet Blue Communications budget, including a communications manager	Promote messaging to campus users and national reach. Increase campus collaboration by effectively communicating sustainability work to internal stakeholders.	Position will need to be able to build and maintain relationships with a broad collection of stakeholders.	\$70,000 + fringe for communications manager; \$50,000 annual communications budget
Support recommendations of the GHG reduction team to create a system to connect energy use to spaces, use costs as incentive to users to address energy use, such as by instituting a carbon tax	Reduce emissions; display U-M commitment	See GHG team proposal	See GHG team proposal
Ensure all new campus members are provided information about best practices (recycling, waste/energy reduction, procurement, catering)	Reduce landfill; educate campus users; display U-M commitment	Add module to HR and Freshman orientation that is simple, short, and engaging. Build expectation for unit support of additional introduction to sustainability infrastructure as needed on a localized basis.	Development of effective materials; minimal thereafter

**\*Note:** Cost estimates and measurement of success is less concrete for the Culture Committee than the other two committees because of the inherent conceptual nature of the goal. Exact prices depend upon specific choices, which will be made by campus units when implementing the recommended goal.

## BACKGROUND

In 2011 the [Campus Sustainability Integrated Assessment \(CSIA\)](#) was completed. This was an intensive, two-year research project in which teams of U-M students, faculty, and staff gathered to assess the degree to which U-M operates as an institution that promotes and teaches sustainability through its procedures and educational programs. As a result of the CSIA, an overarching guiding principle and 2025 goal was devised for several key sustainability areas, to be further addressed by three future subcommittees: Culture, Waste, and Energy. This report encapsulates the recommendations from the Culture Committee, which met over the course of the past seven months to assess promising and necessary changes to promote sustainability at U-M and meet the 2025 goals.

The **Guiding Principle** stated that we would pursue stakeholder engagement, education, and evaluation strategies toward a campus-wide ethic of sustainability.

The **2025 Goal** for our specific subcommittee was to invest in sustainability culture programs to educate our community, promote environmental entrepreneurial behavior, track outcomes, and report on progress.

Taken together, the goal was to ensure that our efforts encompass the promotion of sustainable behavior in students, faculty, staff, and visitors; the education of our community about what it means to be sustainable; support for people desiring to become leaders in sustainability solutions; and measurement of those goals to determine the degree to which we successfully meet them. If we are successful, U-M will be recognized within the university community and among national sustainability experts as an institution that embodies a culture of sustainability in its educational, research, and operational activities.

### Approach

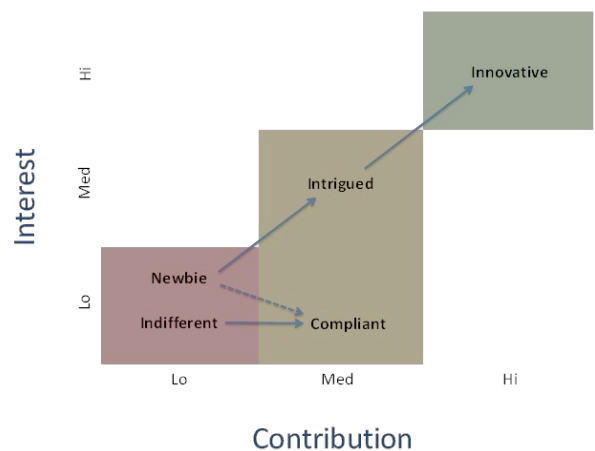
To create a culture of sustainability, we employed two major frameworks: 1) trying to reach the broad spectrum of people at U-M and, 2) addressing four major areas of effort.

**Broad engagement.** We aim to “raise the level” of every individual, regardless of their initial interest in sustainability (see figure). Apathetic or unaware individuals should learn general sustainability principles and enact simple habits (recycling, composting, using some public transportation); those with some interest are encouraged to become more active scholars, stewards, and leaders of sustainability; those with an existing passion are provided with the tools to become active global leaders in sustainability.

**Areas of analysis.** Based on research in the social sciences, we can best foster a culture of sustainability through an approach that spans three elements: **Major Statements, a Living-Learning Community, and Infrastructure & Policy**. In addition, all three of these elements need to be supported with a strong **Communications** plan that ensures our processes and offerings are fully appreciated. The report is divided into each of these four major sections, but we describe each in brief first:

1. **Major Statements.** Actions speak louder than words. As such, people will not perceive U-M as a sustainability leader unless they observe major markers of our commitment during campus visits. Not

Campus Sustainability Activity Levels



everyone will read about our work with solar vehicles or dead zones in the Great Lakes as written about in the Record or Alumni magazines. Major statements must speak silently to our commitment through an unmistakable campus presence, without requiring anyone to click a link or read an article. For example, campus users can observe pleasing prairies or wildflower gardens, sit in a peaceful, shaded, terraced rock garden during class or lunch, or drive past a remarkable “green” building or residential college displaying the latest sustainable design technology (e.g., solar/wind power, a green roof, passive air conditioning). Each location should include clear, uniformly-designed and branded signs that explicate sustainable properties (e.g., to reduce erosion and water pollution through water capture, reduce fertilizer toxins, reduced noise pollution and emissions from fossil-fuel based landscaping equipment). These major statements are win-wins for U-M, as they simultaneously convey our commitment to sustainability, reduce costs from purchasing chemicals and maintaining traditional grounds, preserve the Huron River, and enhance well-being through better access to greenscapes. The sample green building can also showcase and serve as an educational hotbed of innovation as students and faculty use it to test novel design solutions, bringing our “living-learning” ethos to the fore.

2. **Living-Learning Community:** The Major Statements and Infrastructure & Policy recommendations are focused on moving people from lower levels of sustainability engagement up to moderate levels (figure above). But as a sustainability leader and educational institution we need to attend to our passionate students and faculty who seek rich, diverse opportunities to learn and develop inspired, innovative solutions. Not every idea will produce a paradigm shift and some may fail. But the ability to try out new ideas on a small scale, in a relatively safe environment, with ample support from mentors and staff is critical to the process of innovation. Moreover, even failures provide students with the hands-on learning experience that is so desired in today’s market. The university needs to actively support sustainability research and projects through structured learning experiences in the classroom and an administrative infrastructure that promotes exploration and experimentation.
3. **Infrastructure & Policy:** To become a sustainability leader, our operations need to be designed to promote sustainability in all campus users, whether or not they hold pro-environmental views. For example, people can be “nudged” to recycle, compost, and make sustainable purchases through simple changes to the design and location of physical receptacles and options on online ordering websites. Even proenvironmental people can fail to act sustainably if the options are confusing or require effort and, conversely, even apathetic people can act sustainably when the right option is clear and easy. Making sustainability easy also sends a message that U-M cares, which also improves our reputation. Proper waste management and procurement also saves money in the long run by diverting landfill materials, eliminating sorting, and reducing frequent, non-reusable purchases.
4. **Communications:** Excellent, broad-distribution marketing and communication campaigns must accompany all three strategies to ensure that everyone is aware of our activities and how to achieve our collective goals. These campaigns should be catchy, with a simple, branded, and viral quality that ensures that the messages require little initial engagement and have a life beyond our initial “ask.” For example, rather than dragging people toward desired behaviors with repeated nagging emails, links in online newsletters that may not be clicked on, or signs that are confusing or guilt-inducing, U-M needs a coherent, integrated campaign that encompasses all of our programs (e.g., cool, hip bike stickers, T-shirts, viral YouTube videos, and slogans that are fun, easy to remember, and inspiring, such as our existing “I am Planet Blue” slogan). These campaigns cannot stand in for a deep commitment to behaving sustainably. Rather, they should be catalysts that support and enculturate our actual, important efforts described herein.

If we are committed to implementing the most logical, powerful, and effective means of educating our constituents, supporting innovation, and making our campus procedures sustainable then U-M will naturally be recognized as an institution that embodies a culture of sustainability. When this goal is undertaken with true, deep intentions, our messaging and success will naturally spread to the national level.

## How Recommendations Were Reached

The following recommendations were created over the course of the past seven months through regular meetings of the Culture Committee. The Culture Committee includes individuals from multiple schools and organizations, including staff at the Graham Institute, and representatives from Campus Operations, UMHS, Athletics, and the Botanical Gardens and Arboretum, as well as faculty from ISR, SNRE, Psychology and undergraduate students who actively participated in our sustainability-oriented programs. We first brainstormed needs and solutions for U-M to increase sustainability. This included taking any ideas that committee members could imagine (open brainstorming) while also actively searching a variety of sources (committee knowledge, academic resources, internet searches) for programs and policies that exist at peer institutions—particularly the most recognized sustainability leaders in higher education. (It should be noted that nearly all of those schools have a unified office of sustainability that directly reports to the president or vice president, which serves as a single clearinghouse for sustainability initiatives and information. U-M currently lacks this centralized structure, which would aid in enforcing and supporting sustainability initiatives and policies, including those recommended here.) We then prioritized ideas that best achieved our stated goals through an anonymous online voting process (the full list of considered recommendations can be provided upon request). We lastly categorized the selected ideas into the aforementioned four areas. Subcommittees representing each of the four areas evaluated the potential impact of each idea, discussed potential challenges and cost estimates, and devised potential solutions to perceived barriers.

## How Will We Measure Progress

**SCIP.** We already have a good tool for measuring our effectiveness in promoting a culture of sustainability. The Sustainability Cultural Indicators Program ([SCIP](#)) includes surveys administered annually to a representative sample of

<b>INDICATORS</b>	<b>Students</b>	<b>Staff</b>	<b>Faculty</b>
	<b>2014</b>	<b>2014</b>	<b>2014</b>
<b>Conservation Behavior</b>	<b>6.1</b>	<b>6.5</b>	<b>7.0</b>
<b>Waste Prevention Behavior</b>	<b>6.7</b>	<b>7.0</b>	<b>7.4</b>
<b>Rating U-M Sustainability Initiatives</b>	<b>6.5</b>	<b>6.7</b>	<b>6.4</b>
<b>Sustainability Engagement at U-M</b>	<b>1.6</b>	<b>0.7</b>	<b>0.7</b>

students, faculty, and staff since 2012. Going forward, SCIP can be continued and we can focus our attention on our four priority areas, e.g., Conservation, Waste Prevention, Rating U-M Initiatives, and Sustainability Engagement at U-M.

Key findings from SCIP are reported as composite sustainability indicators (from two or more related survey questions, on a scale of 0-10). The table shows the most recent SCIP indicator scores for our four priority areas. We hope to increase ratings by 25% by 2025 over current values for Conservation Behavior, Waste Prevention Behavior and Rating U-M Sustainability Initiatives. Sustainability Engagement at U-M is currently at very low levels. We aim to double those scores by 2025, while ensuring that the items are modified to measure engagement with activities that represent a culture of sustainability as applicable for all three groups (students, faculty, staff). Evidence of our ability to effect change through dedicated efforts, over the past three years we

increased the Sustainable Food Awareness indicators by 8-10% for students, faculty and staff due to a concerted effort to improve that aspect of campus sustainability.

***Additional data and educational synergies.*** We can also measure success from a few sources of data outside of SCIP, including from annual data compiled by U-M's Office of Communications and the Graham Sustainability Institute. We can also merge the evaluation of new initiatives with educational opportunities in units across the university. For example, some recommendations could initially be implemented within a limited area (e.g., one section of campus) and courses could be designed to assist with the program planning, implementation, and evaluation, comparing outcomes to areas of campus that were not touched. Courses taught in the Ford School, SNRE, SPH, Taubman College and ISR already focus on program measurement and evaluation and could serve as practicums that assess new initiatives. In addition, student groups that design new programs or interventions could be tasked with including evaluation in their program plan from the outset, assisted by the new Living-Learning Coordinator (below).

***Communications.*** Excellent measures are already in place to determine the success of U-M in being noticed as a leader in sustainability as used by the Office of Global Communications (see [Planet Blue communications report, appended](#)). For example, extensive data are analyzed and reviewed each year on the extent to which U-M is mentioned in traditional and electronic media, including social media outlets and sustainability rankings. We will continue to monitor our success to be recognized as a sustainability leader through these metrics as described in greater detail below, expecting that implementation of the recommendations in this report will result in a 50 percent increase in our exposure in the traditional and electronic media as measured by news mentions, and a rise in our recognition as a top sustainability institution to the top three in one or more national rankings.



## MAJOR STATEMENTS

### Zero Waste Athletics Educates Fans and Reduces Waste (South Campus Major Statement)

The Environmental Protection Agency defines a zero-waste event as one in which more than 90 percent of refuse is diverted from landfills. Relative to the rest of the university system, Michigan Stadium creates an insignificant amount of waste, but the potential educational and cultural value of zero waste athletics is astronomical. Many peer institutions already have Zero Waste Stadiums including [Ohio State University](#), [Arizona State University](#), [Purdue](#) and [CU-Boulder](#) (see [NRDC Guide and Case Studies](#)). The Ohio State University (OSU) implemented a zero-waste stadium in 2011, they soon after implemented zero-waste tailgating, and they are now expanding to other sports/venues. How can we consider ourselves a leader in sustainability when we so clearly lag behind our most salient rival school?

A “zero waste stadium” would create a highly visible commitment to sustainability, and allows for significant ongoing education and publicity that reaches a broad and diverse audience—particularly those who are typically low on the sustainability engagement spectrum. This is a major opportunity to educate and inspire our less informed stakeholders. It would also provide us with an opportunity to earn AASHE (Association for the Advancement of Sustainability in Higher Education) [STARS points](#). The **Sustainability Tracking, Assessment & Rating System™** (STARS) is a transparent, self-reporting framework for colleges and universities to measure their sustainability performance.



To implement this plan, we need to establish a team with members of the major stakeholder groups including U-M Athletics, Sodexo (Current stadium food vendor), the Office of Campus Sustainability, and Grounds and Waste Management. That team should a) evaluate products and work with vendors to reduce packaging and switch to compostable or recyclable serviceware, b) inventory existing containers, consolidate receptacles, and update stadium infrastructure as needed, c) develop a plan to educate fans, improve game-day collection and monitor waste stations, and d) create a system for tracking data per game and season to evaluate success and consider ways to increase effectiveness. However, given that many of these programs are already in place elsewhere, there are strong models that we can follow that already worked through early troubleshooting to our benefit. For example, OSU determined through experience that people had to be paid to educate fans at the game as volunteers did not suffice in quality or quantity.

A Zero Waste Program at Michigan Stadium would require initial costs for the development and printing of marketing materials, to pay staff time to conduct inventories, work with vendors, and create plans for infrastructure and communication, and to provide new infrastructure (e.g., bins and any changes to stadium layout). Ongoing costs are needed to support staff that manage the program and to pay individuals per game that educate the fans at bins and throughout tailgating areas. U-M Athletics estimates the costs to be approximately \$225,000 for the initial year, with subsequent years being less than the cost of initial capital investments.

## Build a Net Zero Building as a Demonstration and Living-Learning Lab (North Campus Major Statement)

The University of Michigan strives to provide living-learning opportunities for students, to support interdisciplinary study, and connect academics and research to campus operations. Designing and constructing a functional “net zero” building (which generates at least as much energy as it consumes) would support these goals while creating a tangible and visible statement of our commitment to sustainability. According to the EPA, “U.S. buildings account for 39 percent of primary energy consumption and 72 percent of all electricity consumed domestically.” As the University strives toward its greenhouse gas reduction goal, the campus faculty as well as the operations staff have an opportunity to teach and learn from a building that serves as a proving ground for new technologies.



Many colleges and universities are incorporating net zero buildings into their curriculum as living-learning labs, including [Florida State University](#), [Purdue](#), [University of Illinois](#), [Cornell](#), [University of Miami](#), [Oberlin](#), and [Carnegie Mellon \(LEED Gold\)](#).

We must at least match and ideally exceed the benefits provided by our peer institutions. Such a project has multiple reinforcing benefits including: demonstrating our commitment to reducing greenhouse gas emissions and to support innovative, hands-on learning opportunities, bringing multiple academic and operational units together, allowing faculty and students to incorporate curricula and research into campus design and operation, and fostering innovation that would make U-M a global leader in sustainable architecture and energy. We could incorporate and experiment with solar panels, geothermal technology, a small wind turbine, energy dashboards, and green roofs (among other things) and the building could be open to the public and to classes for tours that showcase our innovative, collaborative work.

A successful net zero building needs to tie closely to campus curricula and research, and to connect to learning in a variety of disciplines. The project could be initiated by approaching a college that is encouraged to take ownership. Then an implementation team should be tasked with: identifying opportunities for connecting operations with academics and research, identifying desired building features and other technical aspects of building design, construction, and utilization. Importantly, the work should not end with the initial building of the site, which should continue to exist as a dynamic place that exists in constant flux as faculty and students experiment with new ideas and technologies.

The cost for the design and construction of a net zero building would vary significantly depending on the scale and building characteristics.

## Redesign a Significant Central Campus Outdoor Space to Showcase Sustainable Landscaping and Create Inviting Green Space (Central Campus Major Statement)

Currently, U-M's central campus lacks a marquee sustainability project that is visible and relatable to those passing through campus. The redesign of a significant central campus outdoor space would showcase sustainable features and best practices while demonstrating the university commitment to sustainability and enhancing user well-being. Supporting, clear, abundant informational signage would also educate users and address questions about changes made to a traditional setting. We could also acquire third-party recognition for best practices, such as through the [SITES rating system](#), which would extend our reach beyond campus. Moreover, we must do this to be a leader in sustainability, as many of our peer institutions already achieved SITES certification ([Cornell](#), [Duke University](#), [George Washington University](#), and [UT, Arlington](#)).

A properly-designed sustainable landscape is aesthetically beautiful while achieving multiple benefits to health of people and the environment including: reduced water use; eliminating toxic pesticides/herbicides that contaminate the Huron River and endanger Grounds staff and campus users (who sit and eat on sprayed ground); protect the Huron by filtering and reducing stormwater runoff; increasing wildlife habitat, improving air quality, and reducing noise pollution and emissions from frequent mowing. Such changes would further benefit well-being by providing users with a meaningful way to interact with nature during outdoor classes or “down time”—[supporting mental health and learning on urban campuses](#). For example, a currently unused mowed grass area can be transitioned into a wildlife prairie while another can be made into a terraced rock garden with seating. Faculty and students can be engaged in the design to provide a living-learning experience around green infrastructure, permaculture, and native plantings.



*Such changes are win-wins for U-M because they increase sustainability, reduce negative health effects, enhance human well being, educate the public, and provide living-learning opportunities. The projects cannot be relegated to low-traffic areas that few people observe. We can only enhance people's experience and demonstrate our commitment through showcases in well-traveled, central areas.*



A number of potential central campus locations stand out as opportunities for re-design, including the Central Campus Transit Center (CCTC), North Quad, Dennison, Ingalls Mall, East University Corridor, the grounds of the new biology building, and the Arboretum. There is also interest in a sustainable landscape demonstration on the Athletics campus, such as Ferry Field. Selecting the most appropriate location necessitates working with the University Planner's Office and gaining approval from the External Review Design Committee.

Capital costs include those associated with design and construction and the creation of signage, the magnitude of which depends upon the scale. However, such transformations can save money in the long run because we could reduce chemical purchasing and mowing equipment and time while avoiding concerns about chemical illness in groundskeepers or users while utilizing our own composting to produce fertilizer.

**Support GHG Reduction Team Recommendation to Connect Energy to Users: The Carbon Tax**

The GHG Reduction Team report states that individuals and units should be incentivized to reduce energy consumption and carbon footprints, as well as to generate resources for the institutional investments required. The GHG Committee recommends that a task force be established to develop a plan for an internal carbon toll at the University of Michigan. Money generated from the carbon surcharge should provide funding for continued investment in energy conservation measures. This increase in investment should be tied to marketing and communication plans as recommended by the Culture Team in order to unify themes and ensure that the messages are psychologically salient and motivating. Taking such an action would be a significant leadership statement from U-M, as last month [Yale](#) became the first university to commit—a school that consistently outranks us in national lists of sustainable institutions.



## LIVING-LEARNING COMMUNITY

### Better Support Living-Learning Projects to Enhance Active Learning

Living-learning (LL) projects provide students with hands-on opportunities to experiment with new ideas that improve sustainability at all levels. Sustainability is an area with almost infinite opportunities for living-learning engagement, which enhances the experience of our students, allows for the creation of scalable solutions, and improves the reputation of U-M as a leader in sustainability and active learning. To better support these mutually-beneficial projects, we must utilize the full range of University facilities for formal and informal stewardship instruction, sustainability education, and experimentation. Our Living-Learning efforts should also extend beyond campus to include relationships with the City of Ann Arbor and community groups. To facilitate and expand living-learning opportunities, we must lower the barriers and increase support for the living-learning process.

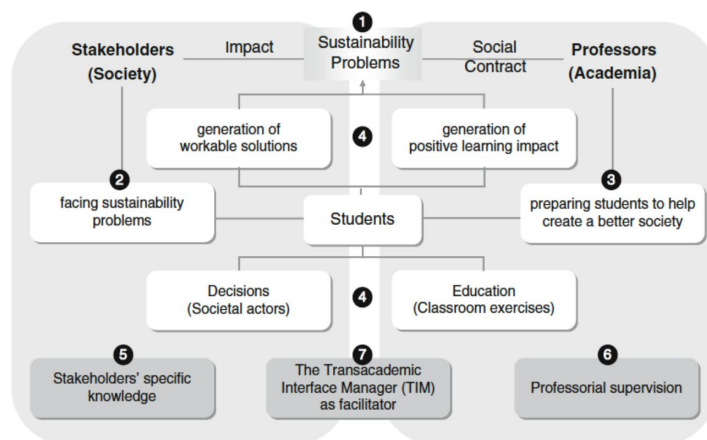


UMBees, a student organization, was awarded a PBSF grant in 2014 to establish a bee sanctuary on campus, but has faced hurdles in implementation.

Currently, frustration in students and faculty is high due to the lack of a coherent, clear process by which projects can be evaluated and approved. Moreover, our many campus, course-based, and student groups often inadvertently work against one another or with redundancy due to a lack of centralized knowledge. We need a full-time, living-learning coordinator and revised institutional policies that thoughtfully balance active experimentation with standards for campus aesthetics and operations. Clear procedures or guidelines would lead to initial project proposals that align with the needs and policies of campus operations. The

board and Facilities and Operations need to be educated to respond to active learning and experimentation projects as pathways to success, rather than “nuisances.”

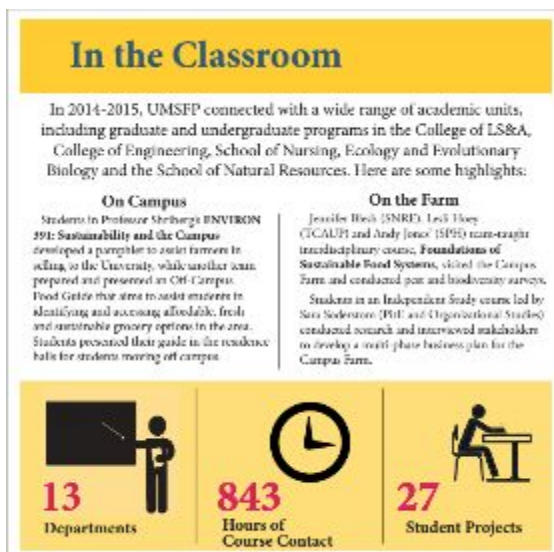
The permanent living-learning lab coordinator position (as identified by [Brunders and Wiek](#); see model and sample initiatives at [Portland State](#) and [Minnesota](#)), would: create a project and person database to avoid redundancy, assist with presentations to review committees, manage docents and tour guides, and advise prospective and existing projects to encourage innovation, evaluation, and the inclusion of sunset/failure clauses. This position would build long-term relationships among review boards, operation staff, student organizations, local partners and faculty—mediating discussions to respect all stakeholders while managing expectations.



Brunders, K., & Wiek, A. (2011). Educating Students in Real-world Sustainability Research: Vision and Implementation. *Innovative Higher Education*, 36(2), 107–124.

Costs include support for a full time living-learning lab coordinator, with a salary sufficient to attract a skilled candidate with a long-term commitment to U-M (i.e.,  $\geq$  \$50,000/year plus benefits with at least a 5-year commitment). Costs were also included in other sections to ensure regular, public transportation to living-learning sites (Infrastructure and Policy) like Matthaei Botanical Gardens and to provide branded, uniformly designed signage for campus LL projects (Communications).

## Long-Term, Stable Support for Major Student-Led Sustainability Initiatives



Excerpt from UMSFP annual report showing academic benefits and partnerships to the student-led initiatives.

In addition to supporting living-learning initiatives and a living-learning coordinator, the University needs to establish stable, long-term support for effective student-led initiatives. Current successful student-led initiatives include Planet Blue Student Innovation Fund ([PBSIF](#)) projects, the [U-M Student Sustainability Initiative \(SSI\)](#), and the University of Michigan Sustainable Food Program ([UMSFP](#)). These programs benefit the residential, academic student experience and are successful, but they are threatened by a lack of ongoing, stable support. With greater support the scope of projects could be significantly increased. These projects are too large to be sustained solely through small project grants or to be managed by the living-learning coordinator—yet their very size benefits the campus and our educational mission.

For example, the [University of Michigan Sustainable Food Program \(UMSFP\)](#) is a collaboration of sustainable-food-related student organizations. It is a growing collaboration of living-learning lab projects and community engagement. It was funded by time-limited grants (a PBSIF award for establishing a Campus Farm; “Quick Wins” grant from the “Transforming Learning for a Third Century” program; University’s Student Life program). The current half-time coordinator has managed multiple student groups, connected students with classes and academic programs, mentored student leaders, and documented all work in the [UMSFP Annual Reports](#). However, the transiency of this position and its funding have prevented us from establishing long-term connections with community groups. Many partnerships and outreach programs had to be turned away because of insufficient coordination time and effort, including classes that wanted to visit the campus farm, summer programs, outreach with food systems in Detroit, and the Bridge Program, which introduces underrepresented minorities to sustainable food systems. In addition, a full-time position with stable funding would allow the coordinator to prepare grants to fund more initiatives and to expand existing ones.

*To truly support these highly-valued, hands-on learning experiences that promote sustainability, educate students and the community, and develop leaders from our passionate students, we need stable, long-term funding that includes operational support for the Campus Farm and a full-time coordinator.*

There are a variety of funding examples from different institutions including [student green fees](#), endowments, grounds and facilities support, and academic unit [funds](#). We recommend developing a long-term funding system while providing ongoing funding for existing programs until a long-term solution is developed. Any time a student project reaches the scope and stability of those mentioned above, they should be considered for stable support.



Although UMSFP has a broad spectrum of support currently, uncertainty in ongoing funding is a threat. For example, funding for the UMSFP Program Coordinator position is not secure past December 2015. Loss of this position would leave the program in an unstable and less effective position.

## Creating a Formal Environmental Community Program Within University Housing as a Living-Learning Program

The Environmental Community Program (ECP) would play a central role in fostering a cohesive U-M culture of sustainability. Ten of the fourteen universities in the Big Ten Conference have a sustainability-themed learning community, including our two major rivals: [Michigan State](#) and [Ohio State](#). We already support other U-M [living-learning communities](#), which are proven to promote a sense of belonging, increase academic achievement, and enhance the college experience. The ECP would be highly marketable, attracting students to apply to and attend U-M. A strong community immersed in sustainability would support the development of innovative ideas, creating the foundation of lifelong sustainability leadership while enhancing our reputation as a sustainability leader.



*ECP (Pilot) program coordinator and student board members visit Fletcher Hall to evaluate potential as a future home for the living-learning community.*

A dedicated ECP within Housing is positioned to succeed because we have been running a pilot community since 2013. This ECP pilot was funded by a combination of groups (e.g., Michigan Community Scholars Program, Planet Blue Student Innovation Fund). The current team includes students from LSA, Engineering, Planet Blue Student Leaders, Student Sustainability Initiative, Graham Scholars program, Michigan Community Scholars Program, and University of Michigan Sustainable Food Program. It is time to transition this pilot into an official sustainability-focused living-learning community within University Housing. Professor Gregg Crane, Director of Program in the Environment, has tentatively agreed to act as the director, and Greg Merritt, Director of Housing, has shown support.

The ECP can experiment with ideas to enhance sustainable living, scaling up successful projects to the rest of campus, thus serving as an exemplar living-learning lab and demonstrating our commitment to sustainability innovation. The current leadership is interested in an on-site garden and farmer's market, renewable energy generation, sustainability seminars, and lectures and workshops to educate and mentor students and campus groups. The ECP will have strong partnerships that allow our young leaders to network broadly while providing environmental education and engagement through coursework, hands-on experiences, and a small grants program. They will train peers to become environmental ambassadors and stewardship entrepreneurs, helping us move moderately engaged students to the higher level of leadership.

Anticipated needs include a steady funding model and accessible location. Housing has proposed an "affinity group" for sustainability students in Fletcher Hall, but the building is not accessible. Alternate ideas include a highly visible location in the Athletics complex where sports fans can purchase farmer's market food or view salient projects during campus visits or Oxford Housing, which is adjacent to the Arboretum with ample space for partnerships (e.g., food growing, composting, permaculture experimentation).

Requested funding ranges from \$104,000 for optimal support to \$33,000 for minimal support, plus an accessible, dedicated space within Housing. See the attached "Environmental Community Program Summary" in [Appendix B](#) for more details.



## INFRASTRUCTURE & POLICY

### Uniform and Consistent Recycling Bins and Signage

The recycling rate for U-M hovers around 30%. The initiation of single-stream recycling should have greatly increased recycling, but any look around campus explains our limited progress. According to a Building Consumption and Waste Analysis commissioned by the Office of Campus Sustainability, audits of two buildings found 22% of material placed incorrectly, with greater contamination in the building with more outdated labeling. As seen in the picture, bins often have hole shapes and stickers that indicate separated recycling (e.g., only paper or only containers), trash bins are often labeled with recycling logos, and bins are often stacked together where one would suffice. When a sustainability freshman seminar was polled this winter, not one person knew that recycling was single stream.



Inconsistencies across units further confuses people. In 2014, 30 U-M buildings were evaluated and building managers were interviewed to measure and identify barriers to waste consistency. Of the 30, informational posters were found in only seven and single stream labels/lids in only half. Blue liners were also inconsistently used, indicating that some recycling bin contents ended up in landfills. The report recommended actions for increasing consistency and improving usability of waste stations across campus. These conditions are confusing, contribute to waste, and add work and expense to our facilities and waste operations. Importantly, they also imply that waste diversion is not a priority for U-M.



*To create a culture of sustainability and reduce waste, it must be immediately obvious to all that we care through clear, easy to use receptacles that divert waste from landfills. We recommend:*

1. Creating design guidelines for recycling receptacles that allow for flexibility by departments according to their own aesthetic and needs, while requiring uniformity in key design features (logos, wording).
2. Eliminating the need for temporary posters through well-designed bins and labels that clearly indicate “Landfill” (not “trash”—which is misleading), Recycling, and Compost.
3. Providing approved messaging materials to help retrofit bins that cannot be immediately replaced, such as removable decal “clings” that include approved artwork and wording.
4. Expand messaging and communications to make sure everyone understands procedures, especially through novel HR and Freshman Orientation modules that are short, simple and informative. We can also use the Planet Blue Ambassador (PBA) program, Presidential Awards, Viral Videos, and Athletics Zero-Waste events to spread the word and promote participation.

Establishing consistent recycling infrastructure requires a significant financial commitment (e.g., capital costs for procuring bins and operational costs for staff to replace bins and to design new logos and bin designs). There will also be capital costs associated with purchasing poster holders that should be made available to facility managers interested in this resource. More detailed cost estimates should be determined by the Waste Reduction and Recycling Office (WRRO). We also support the Waste Committee’s recommendation to improve waste diversion within UMHS, which would significantly benefit from a cultural shift as advocated here.



## Campus-Wide Zero-Waste Events Program Providing Composting Infrastructure and Assistance

Estimates from the Waste Reduction and Recycling Office (WRRO) indicate that 40% of our landfilled material is compostable. Michigan Dining—the largest producer of food on campus—is working diligently to institute pre- and post-consumer composting in residential halls and Union dining. However, a 2014 study indicates that compostable materials are 35%-40% the of waste sent to landfills even in buildings without food service.



35-40% of waste in landfill bins in **non-food service** buildings is compostable

To address waste outside of food services, currently two organizations support a limited number of zero-waste events and composting services: WRRO for staff and the Student Sustainability Initiative (SSI) for students. However, this situation is not ideal for multiple reasons: It is confusing to people that our services are divided and programs are not clearly advertised. SSI can also no longer handle all student events due to exponential growth in student interest and shrinking resources. The WRRO only provides composting pick-up for an additional fee in certain buildings (WRRO-serviced), a service which is rarely being utilized. Only a few buildings started paying for regular composting (Campus Safety Services, Public Health, Art and Architecture) and the single-event service was occasionally requested. It is still small scale, but interest is rapidly growing. Even this small change increased the weight of compost collected by WRRO significantly in the past year from 168 to > 226 tons—an increase that is difficult for our systems to handle and certainly impossible to expand at current funding levels.

*Consistent, coordinated, campus-wide composting and zero-waste events are an obvious characteristic of a sustainable campus that people are clamoring for. U-M is lagging behind both our community's expectations and our peer institutions in this regard.*

A funded, unified, Zero Waste Events Program is needed to provide technical and financial assistance to campus groups so that we can reduce landfilled compostable waste, avoid plasticware, utilize our available composting system, and educate on best practices. The program would streamline existing efforts, improve coordination between units, and include marketing and education that engages a broad audience through partnerships with the Sustainable Workplace Certification Program, Planet Blue Student Leaders (PBSL), and Planet Blue Ambassadors (PBA).

Ideally, U-M would provide campus-wide composting. Practically speaking, we could build up to that level by first educating smaller groups of people so that we can avoid contamination (which is very problematic for composting) while we are educating people on best practices. A pilot program can start by helping certified Sustainable Workplaces implement zero-waste events with our educational and practical assistance, including pick-up for their events (Phase I). Successful workplaces can then help mentor other units and offerings could be expanded to cover large individual events and annual compost carts for Sustainable Workplaces (Phase II).

Dedicating funding to this program would help achieve our waste reduction goals while promoting a culture of sustainability. The program would require capital costs to procure compost collection bins, to develop marketing and educational materials, to purchase compostable ware for pilot programs and perhaps an additional truck for compost pick-up. Operations costs would include the distribution of the bins, increased drop off and pick up locations, additional handling of compostable material, and staff time. Cost sharing should be considered to encourage departments to transition toward greater personal responsibility for their waste.

## Institutional Support for Sustainable Procurement and Event Catering

We cannot be considered a leader in sustainability if our offices and events are run in a fashion that is overtly wasteful. Most campus meetings and events provide plastic water bottles and use disposable plates and plastic cups and silverware. In addition, most office paper does not contain significant recycled content, printing is not double sided in all locations, and most meetings still distribute large amounts of printed material that is rarely read and is available online (which can be accessed on laptops during meetings). We need to establish guidelines for sustainable office management and event catering and promote sustainable behavior through our procurement systems and reward programs.

Staff regularly report that sustainable options are difficult to find and dis-incentivized. For example, the first options for copy paper in the mMarketsite purchasing portal do not include recycled content; comparable items with recycled content are many pages back in the system, which most people never see. Many units also receive a significant cost savings when they make bulk purchases of virgin paper but not recycled-content paper. Validated “nudge” techniques can be used to provide recycled content paper up front and only provide bulk discounts for paper with recycled content. Going further, incentives could be offered to certified Sustainable Workplaces that commit to no-print meetings and sustainably catered events. A survey by the Office of Campus Sustainability found that the average U-M unit spends \$35/person a year on disposable plates and silverware. *The fact that we have no policy or support for avoiding unnecessary disposables undermines our desired culture of sustainability.* We recommend:



1. A Zero-Waste Program (see above and the Waste Committee Recommendations) to establish event composting, in conjunction with the Sustainable Workplace and PBA program, to engage and train staff on waste reduction and troubleshoot unique procurement or catering needs.
2. Commitments from leadership to help encourage the elimination of disposables, highlighted through communications. Coordinated messaging to create social norms around waste-free initiatives.
3. Commitment from procurement to increase the focus on sustainability (such as) by designating a procurement person whose sole focus is sustainability; connecting with vendors and updating purchasing portals to highlight sustainable options, and supporting staff to commit to best practices. By the end of FY 2016 we expect to:
  - obtain greater collaboration and engagement between supply chain parties, including amending/updating vendor contracts; require vendors to provide information on sustainable products/options including minimal packaging, recyclability, and energy efficiency.
  - update the purchasing portal to make identification and selection of sustainable options simpler, with more sustainable options set to be displayed as defaults, including education for staff on new features and best practices.



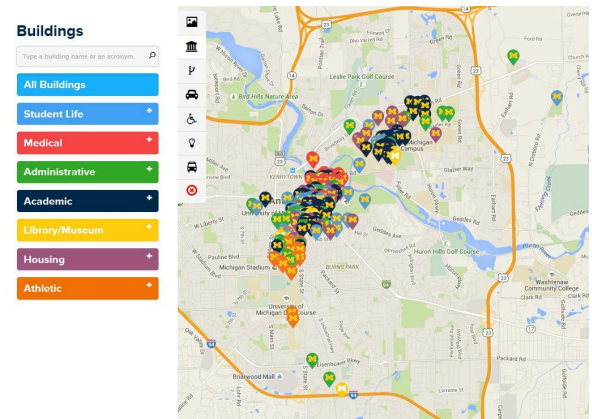
This program would require a capital investment to upgrade the mMarketsite and for some initial costs to purchase reusable items as well as ongoing support for the Zero-Waste program. There are some costs associated with proper communication of these goals (included in Communications recommendations below). Units that commit to zero-waste would also have to make a larger investment up front for re-useable catering equipment and/or the more costly compostable utensils or plates.

## Transit Access to all Ann Arbor Campus Locations That Serve Living-Learning Programs

The University can be applauded for its current support of hands-on educational programs, but student participation in these offerings is often limited by poor transportation accessibility to the facilities. For example, the Herbarium and the Museum of Zoology have been moved to Varsity Drive and the Museum of Anthropological Archaeology is soon to follow. The temporary quarters for the Clements Library is also in this off-campus area while its facilities on Central Campus are renovated.

Importantly for our sustainability engagement goals, the, Matthaei Botanical Gardens and its wonderful Campus Farm host high-quality learning experiences but can only be accessed with a personal car. Naturally, most students do not have a car and best practices eschew single-occupant vehicle transportation. A recent [survey](#) of 457 faculty and students by the ENV 391 class found that 56% would enjoy volunteering at the Campus Farm and 54% were interested in participating at the farm for academic reasons. Despite this interest, the Campus Farm has yet to be incorporated into our programs to the degree possible due to accessibility issues. Providing regular public transit to these locations would not only service participating students, it would also allow for sustainability-related courses to visit the farm on class trips, and for the public to access these great resources regardless of their own transportation situation. Accessible transportation would further showcase our commitment to sustainability and experiential learning.

The committee recommends that Parking and Transportation Services (PTS) be charged with deciding how to provide access to these resources by the end of FY 2016. All modes of shared transportation should be evaluated, as well as the interest and anticipated use by the U-M community. An analysis could help determine the appropriate service, balancing the need for accessibility to campus sites with the goals of keeping costs low and minimizing CO2 emissions. The budget depends upon the solution identified by PTS, and potentially includes capital expenses for additional vehicle(s) and operational expenses for expanded service (distance and/or hours) and staffing.



## COMMUNICATIONS

### Presidential Sustainability Awards Recognize Accomplishments and Promote Innovation

Staff are a key stakeholder that we must reach in order to obtain a campus-wide ethic of sustainability. Presidential Sustainability Awards will recognize and encourage this more than 30,000 strong group to engage in sustainability. We already have similar awards in place to recognize successes for other U-M missions ([President's Staff Innovation Award](#), [Ergonomics Awards](#), [Diversity Leaders Awards](#)) and our peer institutions already have similar awards for sustainability *per se* ([Arizona State University Sustainability Awards](#)).

*A Presidential Sustainability Award sends the message that we care about this topic and rewards people who are improving our campus culture of sustainability.*

We propose two award categories:

1. Recognizing an outstanding dedication to campus sustainability by a staff or faculty member
2. Supporting sustainability ideas proposed by staff or faculty that require small grants (similar to students' [PBSIF](#) sustainability project awards at U-M and the [FIG Awards](#) at UMHS)

This program can reward staff on the front lines, such as facilities and custodial staff, who are often not recognized for their efforts but are a crucial piece in our sustainability initiatives, such as waste reduction and energy savings. It can also be used to recognize staff that spearhead innovative sustainability actions in their workplace. Moreover, knowledge of an award encourages managers to foster staff efforts and promotes a culture that inspires less engaged individuals.

To be successful, the program must effectively communicate the existence of the award, call for and judge the nominees, and broadly herald the accomplishments of the recipients.

Associated costs include award pools and the time to develop program criteria (possibly by Office of Campus Sustainability and Planet Blue Ambassador staff) and to review nominees.



ASU has a peer-recognition award for employees, undergrad award, presidential team award, and green event award.



A culture rewards what it values. This award is another important expression of the value we hold for a diverse and inclusive environment for all members of our community.

— LAURITA THOMAS  
Associate Vice President for  
University Human Resources



## Utilize Messaging Through the President and Other Campus Leaders

A culture of sustainability requires bottom-up and top-down efforts. Our re-launched sustainability goals require help from the President and other University leaders (e.g., Health System, Athletics) to widely advertise our efforts, procedures, and programs.

Communications should be both internal (to increase awareness and support) and external (to build our national reputation). By combining both internal and external communications from recognized campus leaders, we get the maximal return on our investment for sustainable action and for our national reputation. All key stakeholders should be involved including alumni, donors, staff, students, faculty, the community, and other institutions.



*When U-M men's basketball coach, John Beilein, appealed via video to sample members to complete the SCIP survey, completion rates jumped considerably.*

Internally, communication from institutional leaders is known to increase participation with our key programs. For example, after President Schlissel posted on his "On the Agenda" blog about the Planet Blue Ambassadors program over 200 new certifications were completed within a month. The Sustainability Cultural Indicators Program (SCIP) also saw significantly higher response rates from the target population that received reminder messages asking them to complete the surveys from athletic coaches.

*To be effective, trusted, respected leaders must convey sustainability messages, and we must make significant efforts to make them maximally effective (i.e., short, easy to understand, genuine, compelling).*

## Establish a Planet Blue Communications Budget Including a Communications Manager

During the last three years Planet Blue had a dedicated budget of \$50,000/year and in-kind contributions with time from staff in the Office of Global Communications, Graham Sustainability Institute, and Office of Campus Sustainability. These communications have been effective in establishing the Planet Blue brand, but they must be expanded and continue past this initial pilot phase. Without continued, dedicated resources, the significant progress that is exemplified below could be lost.

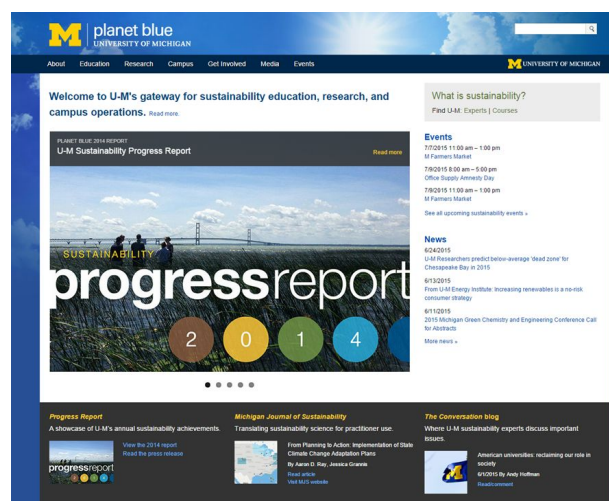
### 3-year communication results include:

#### Website

- 75,000 visits
- 517% more visits than in 2010

#### Traditional and Digital Media

- 4,419 National and statewide media hits, including Today Show, New York Times, USA Today and NPR
- 58,000 subscribers to the Planet Blue e-newsletter
- 128 sustainability-related stories written at U-M
- 413% increase in news media coverage from 2010
- Won three CASE awards for Planet Blue annual multimedia report
- 545 Facebook likes
- 2,417 Twitter followers



A dedicated communications staff member is needed to manage regular, inclusive communications of our sustainability activities and to increase those initiatives. A full-time staff member can monitor and develop a more inclusive and proactive Planet Blue brand, with tailored efforts to reach academic units, Athletics, UMHS, and alumni. The communications manager will effectively communicate operational policies, culture changes, and preferences (e.g., not purchasing disposable bottled water). They will update content on the Planet Blue website, develop media (Photos/Videos/Writing Stories), produce a regular Planet Blue E-Newsletter and an Annual Progress Report and Sustainability Guide, update and release branding guidelines, manage Planet Blue social media channels, and respond to sustainability-related student group communications requests. A similar position was recently established for Innovate Blue, U-M's entrepreneurship initiative.

Associated costs include an annual communications budget of \$50,000/year, which includes printing, design, photographic and video production services, web maintenance/design and production of marketing/promotional materials to support the recommendations of the committee and ongoing Planet Blue communications. Funding for a full-time Planet Blue Communications Manager is recommended at \$65,000 to \$72,000 per year plus benefits. See [Appendix C](#) for more detailed information on the communications position and duties.

## Communicate University Sustainability Best Practices to All New Campus Members

As new students and staff (including at the Health System) arrive on campus and attend central orientations, they should be formally introduced to the culture of sustainability at the University of Michigan. We also need a way to deliver this content to new faculty, graduate students, and to existing campus members. A sustainability orientation would include information on what resources are available at U-M, how to use our services, and best practices for topics like recycling, composting, energy reduction, and sustainable catering and procurement. For example, new campus staff (excluding Health System) do learn briefly about Planet Blue initiatives with an emphasis on becoming a Planet Blue Ambassador in their New Employee Orientation, but this should be replaced with broader content that includes an introduction to sustainable operations, such as recycling guidelines. The method of delivery should be short and easy to comprehend and to remember, while clearly conveying a strong social norm around sustainable behaviors (McKenzie-Mohr and Smith, 2006). This is one of the easiest ways to inform people of our policies and commitment and it is already being used for other topics that we value (e.g., freshmen orientation includes modules for diversity, sexual behavior, and alcohol). Making short, informational material on U-M sustainability procedures available to new and existing campus members also allows us to respond quickly to changes in the system, which necessarily occur as best practices evolve (e.g., we switched from separated to single-stream recycling many years ago and many people are still not aware of the change due to the lack of any coherent way to communicate this to people).

We recommend:

1. Developing a short, engaging, relatable video that is required viewing during HR orientation for new staff and Freshman Orientation. It should introduce campus newcomers to existing sustainability programs/infrastructure, similar to the way the [Michigan Transportation Musical video](#) introduces the bus system to Freshmen. It should clearly demonstrate a U-M commitment and a strong social norm for what is expected regarding waste and energy reduction, including an intro to Planet Blue, our campus sustainability goals, recycling guidelines, and tips on energy and waste reduction.
2. Each individual unit has some slightly different procedures around sustainability, so these units should also be tasked with providing specific orientation information on sustainability that is relevant to their daily within-unit activities (e.g., what type of paper and catering supplies to order, where to recycle or compost). Units would ideally also encourage newcomers to do the online training for the Planet Blue Ambassador (PBA) program.
3. The PBA program can be expanded to better reach existing staff and faculty through revised materials and websites that are more easily digested and through more active communication of the program.



The costs of this goal mainly center around the design of a compelling orientation video. In addition, the Planet Blue and Sustainability office websites need to be redesigned to provide more centralized, easy to access information about how to be sustainable and how to support project ideas. Communications efforts will likely incur some costs to develop and print signs that support sustainability messages.

## APPENDICES

### Appendix A. Continued Commitment Items

Program	Resources	Contributions	Notes
Planet Blue Ambassadors Program (including Planet Blue Student Leaders)	\$150,000/year	Program to engage large portion of U-M community “Interested, but not yet engaged” in sustainability and continue to increase engagement and collaborations	Program could be used as a conduit, existing support system for several recommendations within this support as well as continuing to direct community members to resources and opportunities.
Planet Blue Student Innovation Fund	\$50,000/year	Grants for student-led sustainability projects on campus. Has served as seed money for successful initiatives such as the Campus Farm. Administered by student coordinators with support from the Graham Institute.	Highly rated as important by students and Graham Institute stakeholders. Supports our “living learning lab” recommendations outlined in this report.
Sustainability Cultural Indicators Project	\$150,000/year	Longitudinal survey measuring knowledge, attitudes, and behaviors towards sustainability across U-M's faculty, staff, and students. Unique in it's field. Information has also been used to help target and develop sustainability programs across campus	We recommend using SCIP as an official measurement for the U-M sustainability culture goal. SCIP can also be used to help create effective ongoing and new initiatives for building a culture of sustainability.
Student Sustainability Initiative	\$20,000/year	Coordinating student board and initiative for sustainability-oriented student organizations .Provides organization, collaboration, small-scale funding, and zero waste support. Also serves as a unified student voice to U-M administration.	Will continue to serve as important support for student-led initiatives and maintaining a beneficial relationship between students and administration on U-M sustainability.
U-M Sustainable Food Program	<i>various grants and short-term funding</i>	Collaboration of multiple student orgs oriented towards sustainable food, a growing area of interest on campus with all populations and academically.	Please refer to the “Living-Learning” recommendations for additional information.



## Appendix B: Environmental Community Program Summary

*As submitted by the ECP Program Board and current advisor.*

The Environmental Community Program was established in 2013 with support from the Michigan Community Scholars Program and Planet Blue Student Innovation Fund. Our current team includes students from LSA, Engineering, Planet Blue Student Leaders Program, Student Sustainability Initiative, Graham Scholars program, Michigan Community Scholars Program, and University of Michigan Sustainable Food Program. The current advisor is Emily Canosa. The goal of the Environmental Community Program (ECP) is to establish a Michigan Learning Community focused on environmental sustainability.

The ECP would play a central role in fostering a cohesive culture of sustainability on campus, which is one of the key sustainability goals for the university. From focus group research that we conducted, we learned that students do not see this culture of sustainability on campus. They only see certain symbolic objects, events, and movements, such as Planet Blue water bottles, Earth Day events, and the Divest and Invest campaign. Students are unsure as individuals how to make a positive impact on the environment, and many are unaware of even these events and student sustainability organizations on campus. ECP would be a monumental step in creating a cohesive culture of sustainability on campus, uniting learning, living and leadership centered around sustainability and the environment in a way that can impact the entire campus.

Ten of the fourteen universities in the Big Ten Conference have a sustainability-themed learning community, including Michigan State University and Ohio State University. The University of Michigan's performance on metrics of sustainability compared to other universities is average, and establishing ECP would help the university move closer to becoming "leaders and best" in this field. ECP would be a marketable feature of the university and would attract students to apply to and attend the University of Michigan.[1] Finally, ECP would center the roles of social justice, diversity and inclusion in issues of sustainability and the environment.

Students have expressed interest in communal living, translating sustainability philosophies into lifestyle, and furthering an active and tangible culture of sustainability on campus. Learning communities promote a sense of belonging, higher academic achievement, and a more positive college experience.[2] We envision that ECP would provide environmental education and engagement through coursework and hands-on experiences, support for student sustainability projects through a grant program, and training and personal development to become environmental ambassadors. A strong community immersed in sustainability would allow innovative ideas to develop and be supported, and these experiences will form the foundation of lifelong sustainability leadership. Successful projects within ECP will have the potential to be expanded to the rest of campus. Specific visions for this community include an on-site garden, renewable energy generation, sustainability seminars and lectures, workshops. ECP will have strong partnerships with university programs and student and community organizations that would provide a network of sustainability leaders and mentors for students in the program.

We are requesting consideration for the Sustainability Culture Group's list of recommendations to President Schlissel, as well as feedback and suggestions related to implementing ECP. A proposed budget follows this summary.

As of now, Gregg Crane, Director of Program in the Environment, has agreed to act as the director of ECP. We have met with Greg Merritt, Director of Housing, and he fully supports us in launching a sustainability affinity group in Fletcher Hall. However, Fletcher Hall is not a handicap accessible building, and because inclusion is central to our work and the work of the University, we are also exploring other options, including Betsey Barbour, Oxford Housing, Bursley and Markley residence halls.

See table on next page.

Category	Description	Optimal amount	Minimum amount
<b>Director</b>	Salary for learning community director. Position would be half-time or part-time and director would teach the course associated with the learning community and represent the learning community	\$25,000	\$0 in-kind support from Gregg Crane, director of Program in the Environment
<b>Assistant Director/ Coordinator</b>	Salary for assistant director or coordinator. Position would perform more of the everyday management of the learning community, overseeing student staff, programming, mini-grants	\$40,000 full-time + \$10,000 benefits = \$50,000	\$20,000 half-time + \$5,000 benefits = \$25,000
<b>Programming</b>	For events and activities. These funds could be used for food, speakers, field trips, equipment, office supplies, gardening and student-led events and activities	\$12,000	\$3,000.00
<b>Student staff (RAs, student leaders, student office staff)</b>	Salaries for learning community specific residential advisors as allocated by Housing, student leaders who have previously participated in the learning community and serve as peer mentors, and student office staff who assist with administrative tasks	Two student staff at \$10/hour for 8-12 hours a week = \$6400	Two student staff at \$10/hour for 6 hours a week = \$3480
<b>Mini-grants</b>	Funding specific to program participants for student projects for improving sustainability in the residential area. For example, implementing a composting program, starting a community garden, installing adjustable thermostats.	\$10,000	\$1000 (this amount could be reduced by leveraging other grant opportunities available on campus such as SSI project grants, PBSIF grants or Abrams Challenge Grants)
<b>In-kind housing support</b>	Modest sustainability project grants for residence hall, office space, rooms in housing, housing staff support	N/A	N/A
	<b>Total</b>	<b>\$103,400</b>	<b>\$32,840</b>

Contact us at:

Environmental Community Program Board ECP 2014-2015@umich.edu

Emily Canosa emcanosa@umich.edu

[1] Focus groups, March 2015. Data available upon request.

[2] Kuh, G. D. (2008). High-impact educational practices: What they are, who has access to them, and why they matter. Washington, DC: Association of American Colleges and Universities: [https://keycenter.unca.edu/sites/default/files/aacu\\_high\\_impact\\_2008\\_final.pdf](https://keycenter.unca.edu/sites/default/files/aacu_high_impact_2008_final.pdf).

## Appendix C: Sample Planet Blue Marketing and Communications Manager Job Description

### Planet Blue Marketing and Communications Manager

#### Proposed Job Market Title

Marketing Communications Specialist

#### Proposed Salary Range

\$65,000 - \$72,000

#### Job Functions / Duties

Percent of Total Time	Job Function/Duties
20%	Work with PB team to create and direct the implementation of a strategic, multi-channel, marketing and communications plan.
20%	Plan, research, write, and edit news releases, feature stories, promotional copy, and other content for publications, including both digital and print outlets.
20%	Work in collaboration with the PB team by researching and securing opportunities for speaking and presentation engagements for students and team as a part of the overall public relations strategy.
20%	Work with the campus-wide key stakeholders to collect, share and repurpose, and create new and engaging web content, including news and feature stories and a comprehensive social media strategy.
10%	Effectively publicize PB related activities, such as new research innovations, student-run initiatives, lectures, seminars, workshops, and short courses.
5%	Respond to media inquiries related to PB programs, faculty research and/or other issues related to innovation and entrepreneurial activities on campus.
5%	Track and measure communications initiatives with clicks, follows, likes, shares, and other metrics. Use that input to refine communications strategy.

#### Position Qualifications

- Bachelor's degree in communications, digital media, journalism or other related appropriate field required; graduate degree preferred but not mandatory.
- At least 5 years of communications experience, including hands-on expertise in marketing, public relations, social media, print and digital publishing.
- Creativity, collaboration, and ability to manage numerous projects in a fast-paced environment.
- Experience in gathering and analyzing data to guide strategy and be willing to quickly pivot if strategy is proving to be unsuccessful.

#### Additional Information

This position will report to the Office of the Vice President for Global Communications and Strategic Initiatives.



planet blue

UNIVERSITY OF MICHIGAN

PLANET BLUE COMMUNICATIONS

**highlights**2011–2014



PLANET BLUE  
AT U-M  
FROM  
**2011**

TOGETHER, WE'VE ADVANCED U-M'S STANDING AS AN EVER-GROWING SUSTAINABILITY LEADER

innovative, ongoing communication programs **have been crucial.**

**SINCE 2011, PLANET BLUE COMMUNICATIONS** has led multiple efforts to establish and promote U-M's comprehensive work in **research, education, campus operations and community engagement.**

Establishing a new communications infrastructure for sustainability included re-imagined branding, new website architecture, customized global media outreach, a social media plan and dozens of ongoing collaborations with student groups, faculty and staff.

This solid foundation has allowed the university to consistently and simultaneously present narrative and visual stories of the interconnected work taking place locally and globally to tackle some of the most complex sustainability issues our world faces.



**4,419**

**MEDIA HITS,**  
INCLUDING TODAY SHOW,  
NEW YORK TIMES, USA TODAY  
AND NPR



**75,000**

**VISITS**  
TO THE NEW WEBSITE



**58,000**

**SUBSCRIBERS TO THE  
PLANET BLUE  
E-NEWSLETTER**



HIGHLIGHTS BY

thenumbers

2011–2014

SOCIAL

- 545 Facebook Likes
- 2,417 Twitter Followers

WEBSITE

- 75,000 visits
- 517% more visits than in 2010

MEDIA

- 4,419 National and statewide media hits, including Today Show, New York Times, USA Today and NPR
- 58,000 subscribers to the Planet Blue e-newsletter
- 128 sustainability-related stories written at U-M
- 413% increase in coverage from 2010

MARKETING

- More than 25 campus partners using the Planet Blue logo, including every major sustainability program and institute
- 25,000 Planet Blue-branded water bottles in the U-M community, being studied for impact on reducing disposables

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128

SUSTAINABILITY-RELATED  
STORIES WRITTEN  
AT U-M



545

LIKES



2,417

FOLLOWERS

25,000

PLANET  
BLUE-BRANDED  
WATER BOTTLES



PRODUCED AWARD-WINNING DIGITAL REPORT

Collaboration with content contributors from more than a dozen schools, colleges, institutes and administrative offices enabled OVPGC to produce the award-winning, interactive sustainability progress report. Since 2012, the university has used the digital format—packed with compelling images, videos, interactive info graphics and links—to highlight the university's local and global sustainability achievements in education, research and operations and feature the voices of faculty, students and staff engaged in sustainability work. The initial report garnered two national and three regional CASE awards, was covered widely by sustainability-focused media outlets and was promoted broadly via social media.



CREATED SUSTAINABILITY  
VIDEO SERIES

Produced 10 new videos featuring students, faculty and staff promoting sustainability-related education, research and operations. Topics included future leaders, tracking climate decisions, creating a sustainable campus and the human psychology and biology that drives consumption.

413%

INCREASE IN  
MEDIA COVERAGE  
SINCE 2010



HIGHLIGHTS OF  
**major**announcements

2011



**Publicly announced institutional commitment to sustainability and campus goals**

Emerita president Mary Sue Coleman announced institutional sustainability goals to a crowd of students, faculty, staff, donors and other key constituents during her 2011 Sustainability Address. The event set in motion a greater emphasis on creating awareness of, and sharing more broadly, the university's commitment to sustainability through education, research and operations. The announcement was well covered in 70 media outlets, including the *Chronicle of Higher Education*, as well as in national sustainability-oriented blogs. A dedicated, vibrant web page was developed on the sustainability site to feature this major presidential announcement. The site received more than 10,000 page views during the week of the announcement.

ANNOUNCEMENT  
COVERED BY  
**70**  
MEDIA OUTLETS

2012



**The launch of the Dow Sustainability Fellows Program**

The program will provide 300 graduate students with new research and learning opportunities and arm them with the skills to make a difference in the future of the planet. The announcement was covered by 65 media outlets, including statewide and national media, and garnered national social media attention. The first set of Dow Fellows was announced in January 2013. Ongoing communication efforts for the program include: creation and maintenance of a dedicated website, regular editorial planning, *University Record* articles, media pitching and placements, broad sharing of content on social media platforms and production of a semiannual highlight report to share with our Dow partners.

**Launch of the U-M Water Center for freshwater restoration and protection**

The U-M Water Center engages researchers, practitioners, policymakers and nonprofit groups to support, integrate and improve current and future freshwater restoration and protection efforts. It supports the work of 28 project teams comprising more than 150 researchers representing 22 universities in the United States and Canada, 16 federal, state or municipal agencies and six non-governmental organizations. The Water Center was made possible by a \$4.5 million, three-year grant from the Fred A. and Barbara M. Erb Family Foundation and additional funds from the university. More than 380 media hits resulted from the Water Center's announcement, and over 1,300 people visited the website in under 48 hours.





2013

## U-M released major report on hydraulic fracturing

U-M researchers released seven technical reports that together form the most comprehensive Michigan-focused resource on hydraulic fracturing, the controversial natural gas and oil extraction process commonly known as fracking. Press conference and media coverage resulted in more than 1,500 downloads of the reports.



1,500

COPIES OF THE  
REPORT

DOWNLOADED BY THE  
MEDIA AND PUBLIC

2014



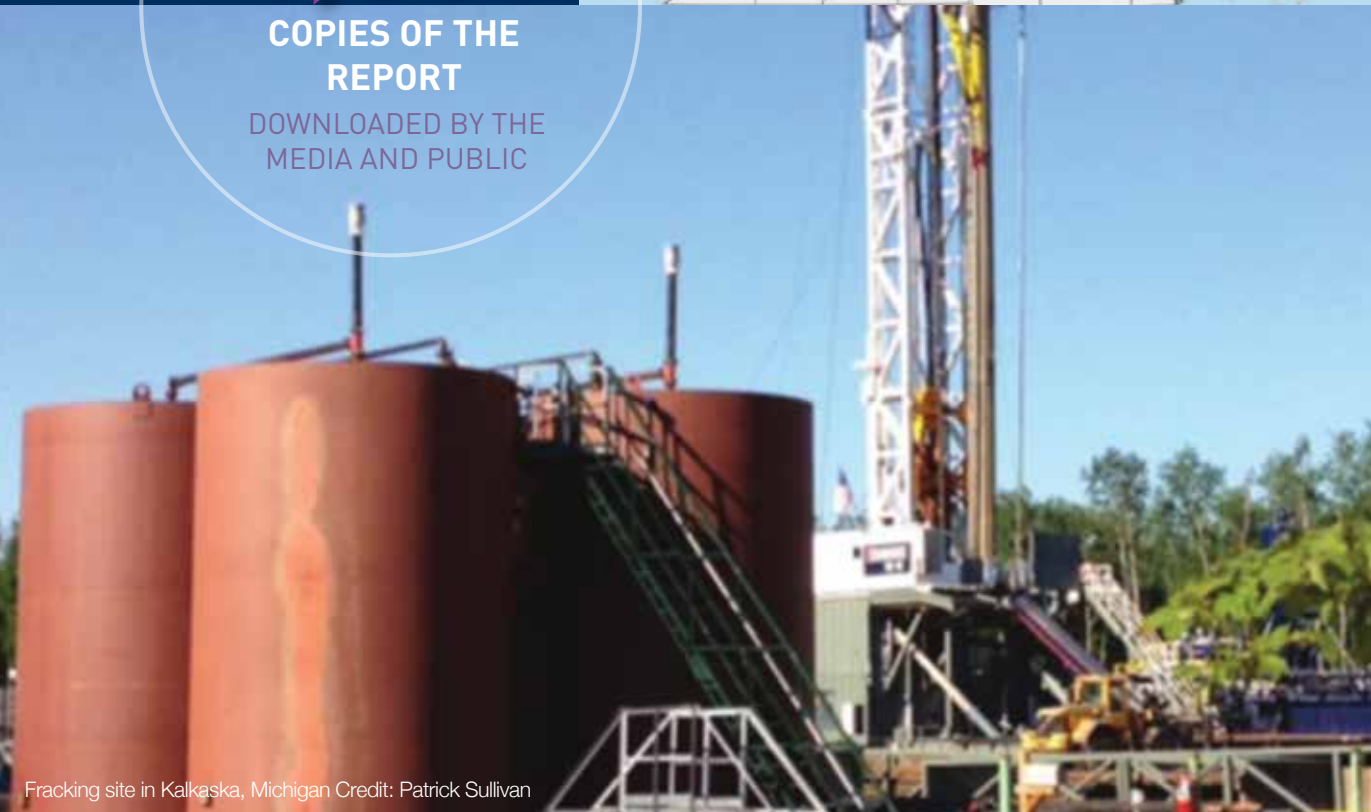
## Creation of driverless Mcity

A unique, 30-acre, mini-city can be found on U-M's North Campus for testing connected and automated vehicles. The facility, which simulates a dynamic urban environment complete with 10 intersections, is a critical element of a joint industry and government project to develop and implement an entire system of connected and automated vehicles on the streets of southeastern Michigan by 2021. The announcement received more than 950 media hits, including coverage by Today Show, *New York Times*, *USA Today* and *Washington Times*.

ANNOUNCEMENT  
RECEIVED MORE  
THAN

950

MEDIA HITS



Fracking site in Kalkaska, Michigan Credit: Patrick Sullivan



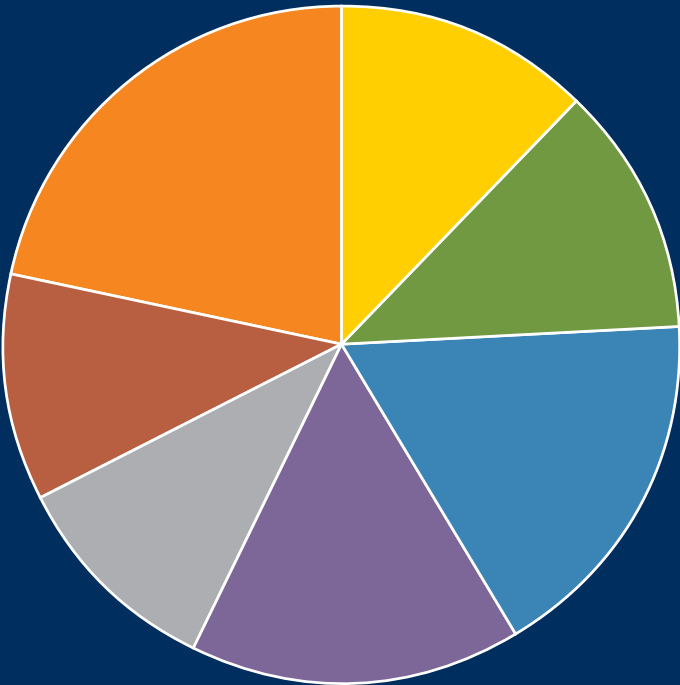
MEDIA PRESENCE BY

# sustainabilitypeers

U-M maintains a competitive position against some of the most influential universities in sustainability. U-M research stories on sustainability received the most news coverage, with strong interest in Great Lakes ecosystem restoration and the testing of driverless automated vehicles. Student-related stories also played well with media, with significant coverage globally. Stanford remains more prominent with multiple points of coverage including global research from the Stanford Woods Institute for the Environment, the 2014 nomination of Stanford professor Franklin Orr as undersecretary for science at the U.S. Department of Energy and Stanford's announcement to divest from coal mining companies.

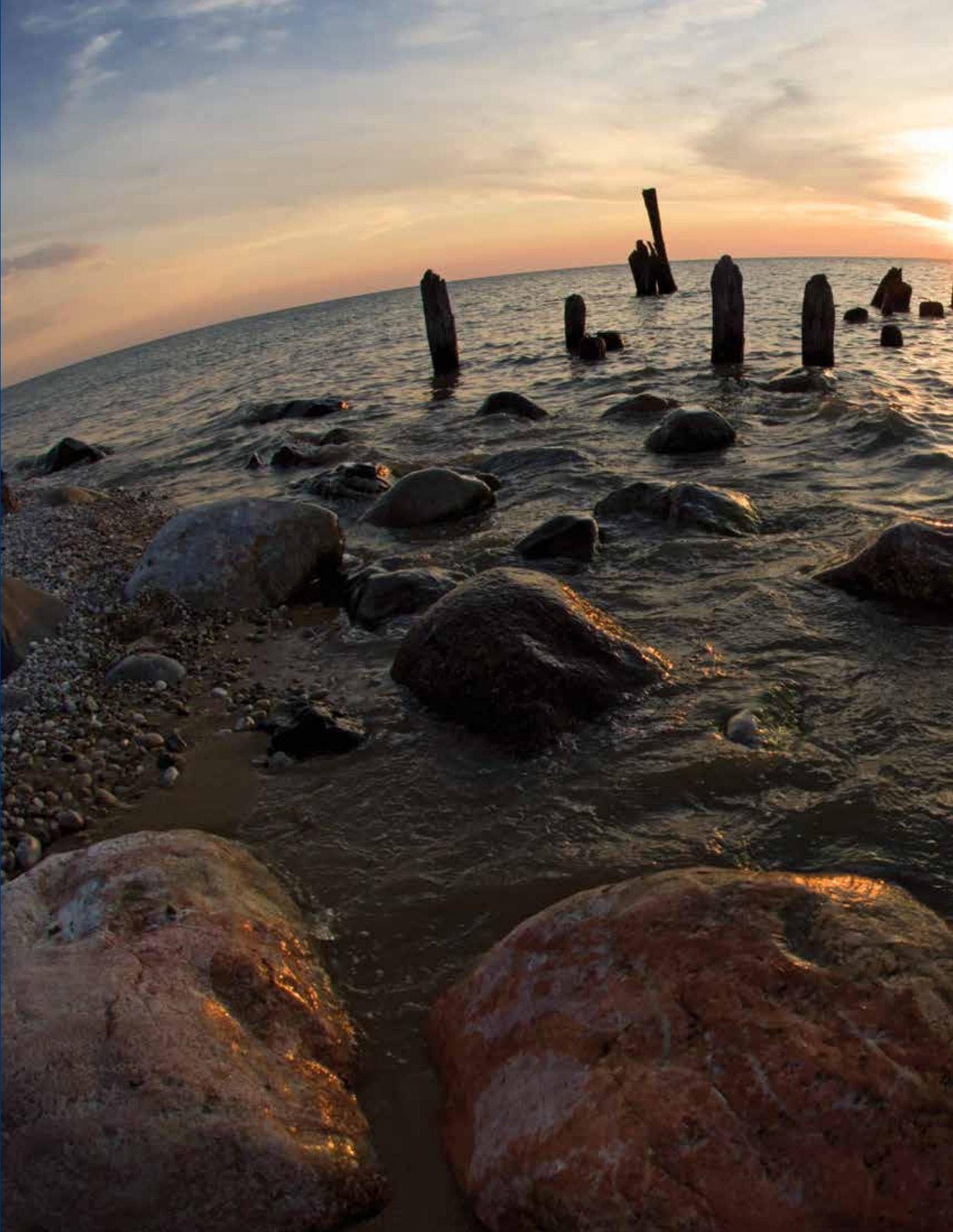
Yet, U-M maintains a very competitive position among some of the most influential public and private universities in sustainability. Media coverage is one measure used to monitor our progress.

PEER INSTITUTION MEDIA HITS



2014

- (7,614) Stanford
- (6,132) Yale
- (5,638) Cornell
- (4,419) University of Michigan
- (4,216) U-Wisconsin, Madison
- (3,848) UCLA
- (3,640) U Penn







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[SUSTAINABILITY.UMICH.EDU](https://sustainability.umich.edu)

