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I am pleased to report that many exciting developments related to sustainability have taken place at the University of Michigan (U-M) in the past few months.

As you will read in this newsletter, President Coleman recently articulated a bold new university-wide commitment in this all-important area. This commitment includes the establishment of a Special Counsel to the President on Sustainability, and I have been given the honor of serving in this new role.

Special Counsel duties include:

- Advising the President on environmental sustainability matters as they relate to overall University mission and policies and interacting with organizations outside the University.
- Raising campus awareness of environmental sustainability issues and concerns.
- Promoting and advocating for University efforts to address environmental issues.
- Encouraging collaboration among faculty, students, and staff in addressing environmental issues in education, research, and practice, as appropriate.
- Acting as the primary point of contact for student groups interested in working on sustainability related issues at U-M.
- Serving as Senior Staff to the U-M Executive Council for Environmental Sustainability.

Initial efforts will focus on cross-campus engagement to develop a bold new U-M Sustainability Research and Education Plan for the 21st Century. The overarching goal of this effort is to set a global standard for sustainability excellence in the following areas:

- **Curricula:** Providing opportunities for all U-M students to the principles of sustainability, while also offering deep learning opportunities for students to work across disciplines and gain the knowledge and skills to become sustainability leaders.
- **Action-Based Learning:** Creating a stimulating continuum of impactful sustainability scholarship with a focus on action-based learning integrated with research and using the campus as a living-learning center.
- **Research:** Identifying sustainability themes that align with U-M strengths, and launching initiatives in these areas to leverage existing assets, attract new talent, and integrate the natural, social and technological sciences around grand sustainability challenges of the 21st Century.
- **Engagement:** Delivering world-class technology, knowledge, and analysis to the business, government, and NGO communities – allowing them to formulate and implement better policies, practices, and solutions that foster sustainability from local-to-global scales.

Our efforts in all of these areas will be designed to tie in with key sustainability themes that build on U-M strengths, such as Energy Systems, Sustainable Water Systems, Sustainable Mobility, Green Building Design and Construction, Green Chemistry, and Climate-Change Adaptation.

These activities will also build on U-M’s current sustainability initiatives, including education programs at the bachelor’s, master’s and doctoral levels; specialty research institutes, centers, and field stations; and engagement efforts with the business, government and NGO communities.

All-in-all, it is a very exciting time for Sustainability at Michigan, and I am honored to be in a position to help move our fine institution forward on this front.

The challenges ahead of us will not be easily surmounted, but through widespread collaboration and cooperation, we will achieve great things together.
University of Michigan President Mary Sue Coleman announced on Oct. 5, 2009 that she will lead a multi-faceted initiative to elevate the university's commitment to sustainability in teaching, research and operations.

Under the plan, U-M will strengthen its efforts to reduce the institution's carbon footprint, set specific targets for reducing environmental impact, create and expand academic courses and research opportunities, and connect academic and operational activities to make the campus a living laboratory for sustainability.

“The pressing challenge of environmental sustainability is a huge global concern,” Coleman said. “From teaching and research, to hands-on engagement, we are going to leverage our many strengths to make significant contributions to an urgent and extraordinarily complex problem. We aim to inspire students, faculty and staff to become involved in these issues that affect our lives and our future.”

A broad leadership framework with three new components will carry out the effort.

Coleman will chair a new Sustainability Executive Council, comprising university leadership, to set direction and goals, review proposals and funding requests, and ensure sustainability decisions and priorities receive oversight at the highest level.

Coleman also announced that Don Scavia has been appointed to the newly created position of special counsel to the president on sustainability. In this role, Scavia will serve as the point person for sustainability at Michigan. He will advise the executive officers and the president on sustainability, serve as the primary contact for students working on sustainability-related issues, and guide the discussion, planning and coordination of the full range of sustainability activities across campus. Scavia will also continue as director of the Graham Environmental Sustainability Institute.

A new Office of Campus Sustainability will serve as the focal point for sustainable operations at the university. The OCS, formed through a restructuring of the Department of Occupational Safety & Environmental Health (OSEH), will be led by Terry Alexander, former director of Occupational Safety and Environmental Health, reporting directly to Hank Baier, associate vice president for Facilities and Operation. The OCS will work with existing programs such as Planet Blue, Climate Savers and other activities in University Housing and the Health System as well as new programs to promote and coordinate sustainability throughout campus operations.

As one of its first tasks, OCS will work collaboratively with offices across campus to identify sustainability standards and goals for operations, and recommend them for endorsement by the Executive Council. OCS will also partner with the Graham Institute on bottom-up proposals, and lead efforts to reach operational goals endorsed by the Executive Council.

“I especially want to thank our students, particularly from the Student Sustainability Initiative who have pushed us to do more throughout the University,” Coleman said. “We welcome your energy and your ideas. You are going to play an invaluable role in Michigan’s leadership in sustainability both locally and throughout the world.”

Coleman said she intends the initiative to capitalize on an unprecedented student passion and urgency about sustainability. She said the university will examine and expand course offerings and research opportunities, and invest in hands-on projects where students learn by involvement in the university’s efforts to create a greener campus.

“We aim to educate students who will take their place in society as leaders and citizens who are informed, responsible advocates for a sustainable world,” Coleman said.

Coleman said the initiative will draw on the strengths of U-M’s many efforts in environmental sustainability, including research centers such as the Erb Institute for Global Sustainable Enterprise, the Michigan Memorial Phoenix Energy Institute, and the Center for Sustainable Systems, as well as dozens of academic programs.

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As an outcome of the newly established University of Michigan (U-M) sustainability structure, the Graham Institute is charged with connecting academic activity to campus operations, as appropriate, to facilitate collaborative sustainability pursuits at U-M.

In an effort to integrate this responsibility with our broader research and education agenda, we have initiated an Integrated Assessment (IA) directed toward sustainability aspects of U-M campus operations.

“Integrated Assessment (IA) is a collaborative research process that brings together knowledge of ecosystems, people, and policy in order to find solutions to challenging problems,” says John Callewaert, IA Program Director for the Graham Institute. “It is designed to give decision-makers the knowledge they need to make sound decisions.”

The Campus Sustainability IA project is designed to facilitate progress toward the following goals:

- Involve the full U-M community in capturing ideas for a campus sustainability strategy
- Identify opportunities to use the U-M campus as a sustainability learning laboratory for campus community members
- Identify opportunities for potential demonstration projects to foster campus sustainability research and learning
- Educate the U-M community on campus sustainability issues, and identify means to change culture as appropriate
- Publish an edited final report in an appropriate journal to share what we have learned as a community

The Campus Sustainability IA process will engage campus stakeholders (e.g. faculty, staff, students) who are interested in campus sustainability issues. Likely methods of engagement will include surveys, online discussion forums, workshops, and townhall meetings to ensure that a broad range of viewpoints are included in the IA process.

Areas likely to be investigated include:

1. Transportation
2. Food
3. Energy Sources
4. Land & Water
5. Purchased Goods
6. Building Standards
7. Culture & Communication

“Going forward, we will be applying the IA approach to a wide array of sustainability challenges from local-to-global scales” says Drew Horning, Deputy Director of the Graham Institute. “We are hopeful that this initial effort will assist the U-M Office of Campus Sustainability in charting a compelling course for the future, while also providing the Graham Institute with valuable process learnings to inform our future IA efforts.”

The Campus Sustainability IA will be executed in 2010.

To learn more about the U-M Campus Sustainability Integrated Assessment project—and how you can get involved—please visit the RESEARCH section of the Graham Institute website at www.graham.umich.edu.
Two Innovative Courses Continue

“Sustainable & Fossil Energy”

“This class was an unbelievable experience,” says Tad Ritter, an International Studies sophomore who took the three-week GeoSci 344 course at Camp Davis this past summer. “I probably learned more in a few weeks than I did in my whole first year of college.”

With such an outstanding review, it’s no surprise that this three-credit, Undergraduate Scholars Course (sponsored by the Graham Institute) will be offered again next spring.

The course, titled “Sustainable & Fossil Energy: Options & Consequences” features hands-on investigation of alternative energy systems at Camp Davis and areas near Jackson Hole, WY. Tad says it is the first-hand experience that makes all the difference.

“In a typical class, you learn, but you don’t experience,” Tad says. “But with this course, we had hands-on activity with every topic we learned about. We were able to talk to people and see different systems in person. It was incredible.”

As part of the course, students study a wide variety of different energy options, such as geothermal, hydropower, wind, solar, etc. They then work in teams to research how viable or non-viable a particular energy system would be for the Camp Davis field station. At the end of the term, the student groups present their findings.

This past summer, Tad investigated and reported on hydropower, which his team deemed as economically and physically feasible for Camp Davis.

According to Prof. Joel Blum, who co-teaches the course, the 2010 class will follow the same overall format.

“Sustainability & the Campus”

This new course (Environ/RCI 291), launched last year by the Graham Institute, was so successful that it is being offered again during the 2010 winter term.

“The class filled up very quickly,” says Engineering Professor Steve Wright, Faculty Education Director for the Graham Institute. “But this year, we’ll accept more students—and maybe even split it into sections if necessary. The demand is certainly there.”

This “Sustainability & the Campus” class explores the ecological, social, and economical dimensions of sustainability in higher education, with specific focus on sustainability practices at the University of Michigan.

Although the class encompasses traditional learning elements, such as lectures and course assignments, the crux of the class is that students are given the opportunity to investigate real-life sustainability challenges on the U-M campus. Findings from the course will be shared with the new Office of Campus Sustainability for consideration—helping to further solidify the practical application of the course.

“Students aren’t just taking a hands-on class,” says Prof. Wright, “they’re being given an opportunity to serve as change agents at their university.”

Participants work in teams to research and report on potential sustainability projects on campus. For example, last year, a team investigated the opportunity of implementing trayless dining on campus (to save on water and reduce food waste), and their proposal resulted in a real-life pilot program at one of the residential dining facilities.

“This course is a great way for students to gain hands-on research experience that can have a real impact at their university,” says Course Instructor Mike Shriberg. “It’s a unique and valuable opportunity.”

For details, please visit the EDUCATION section of the Graham Institute’s website at www.graham.umich.edu.
On September 17, 2009, U-M Sustainability Expert and Graham Institute Director Don Scavia testified before the U.S. Congress on how to address the depletion of oxygen from the Great Lakes, the Gulf of Mexico and other major U.S. bodies of water.

"Hypoxia — regions of lakes and oceans with seriously depleted oxygen — has become an issue of global importance," Scavia said. In the Great Lakes region alone, Lake Erie’s dead zone, once thought to be shrinking, has grown again to threatening levels not seen in years. A key factor is the phosphorus lost from nearby fields.

Scavia made several suggestions to improve current policy. Among them were:

- Establish a partnership between the National Oceanic and Atmospheric Administration (NOAA) and Environmental Protection Agency in the Great Lakes to take advantage of the significant investments made by NOAA in both harmful algal bloom and hypoxia research.
- Shorten the time frame to complete action plan reports for the Gulf of Mexico from two years to one year. These reports also should include details on specific management actions as well as updates on the environmental conditions in the region.
- Allocate NOAA research funds through an extramural competitive, peer review process.

For details about Dr. Scavia’s hypoxia research, log onto http://sitemaker.umich.edu/scavia/assessment

New Sustainability Initiatives at U-M (Continued)

that include the Program in the Environment in the College of Literature, Science, and the Arts, and the Engineering Sustainable Systems dual degree offered by the School of Natural Resources and Environment and the College of Engineering.

Scavia said the educational component of the initiative will include doubling capacity in “Sustainability and the Campus” – an interdisciplinary course that offers students the opportunity to participate in substantive, hands-on group projects. Past projects have evaluated whether a cafeteria can reduce food waste by removing trays and whether it may be feasible to place solar panels on a U-M athletic facility.

A new course, international in scope, will be based at the Mpala Research Center in Kenya to study the relationship between rural Kenyan populations and the surrounding ecosystems. The course will be offered for the first time in summer 2010.

Plans are under way for more courses such as “Sustainable and Fossil Energy,” which was offered for the first time summer 2009 at Camp Davis in Wyoming where the facility served as a small experimental city for students who studied its energy and resources in a carefully monitored and controlled environment.

“We want every U-M student to gain an understanding of the complexities of sustainability,” Scavia said, “and to offer them the most enriching learning opportunities through hands-on coursework and programs that leverage the intellectual strengths from every corner of our university.”
Welcome Aboard

Three New Members of Graham Institute’s External Advisory Board

Please join the Graham Institute in welcoming the following individuals to the Graham Environmental Sustainability Institute Advisory Board:

- **Lana Pollack:** Lana led the Michigan Environmental Council from 1996 until 2009—helping to drive a collective voice for the environment at local, state, and federal levels. From 1983 to 1995, she served in the Michigan Senate, where she introduced legislation that later became the “Polluter Pay” Law, which forced the responsibility of cleaning up polluted industrial sites onto the polluters. During her tenure with the Michigan Senate, Lana served on its Appropriations, Finance, Education, Criminal Justice and Urban Affairs committees.

- **Mark Van Putten:** Mark spent more than 25 years with the National Wildlife Federation (NWF), the largest member-based conservation organization in the United States. This includes seven years as NWF’s President and CEO and 15 years as the founding director of NWF’s Great Lakes regional office. Mark established an environmental strategy and organizational development consulting firm called ConservationStrategy in 2003. He is recognized as a visionary leader with proven strategic thinking and planning skills and has a concrete record of turning long-term goals into ongoing organizational reality.

- **Lois Schiffer:** Lois Schiffer is General Counsel at the National Capital Planning Commission and Adjunct Professor of Law at Georgetown University. She was formerly a partner at Baach Robinson & Lewis PLLC in Washington, D.C. From 1993-2001, Lois served as Assistant Attorney General for the Environmental and Natural Resources Division at the U.S. Department of Justice, with responsibility for litigation on behalf of all federal agencies related to pollution, natural resources, wildlife, certain Native American issues, and land condemnation. She has argued cases before a number of Courts of Appeals and the U.S. Supreme Court.

Those who recently completed their board term are Mark Kane, Bob Hutchinson, and Chuck Newman.

New Integrated Assessment Team

**John Callewaert, Director of Integrated Assessment:** As Integrated Assessment Program Director, John is responsible for designing, implementing, and overseeing the day-to-day operations for the Integrated Assessment (IA) Program, including administrative, financial, personnel, and strategic research planning activities. John joined the Graham Institute in October 2009, after serving for two years as the Director of the UM-Flint Office of Research. From 2000-2007, John was the Founding Director of the Institute for Community and Environment and Associate Professor of Social Sciences and Education at Colby-Sawyer College in New Hampshire. John earned a B.S. in Agricultural Engineering Technology from Michigan State University and his Ph.D. from the School of Natural Resources and Environment at U-M. His teaching and research interests focus on environmental justice, environmental sociology, environmental management and community-based research.

**Katie Lund, Integrated Assessment Specialist:** Katie joined the Graham Institute as an Integrated Assessment Specialist in September 2009. In this role, Katie oversees the stakeholder engagement process for all active Integrated Assessments (IA). She also collaborates with IA faculty research teams and participates in the analysis of policy options for sustainability-focused IA projects. Most recently, from 2007 to 2009, Katie worked as a grant writer for a non-profit education center in Pasadena, CA. Prior to this, from 2000 to 2006, she worked as a Stewardship Coordinator for the Massachusetts Office of Coastal Zone Management in Boston, where she translated science for local decision makers, led local and state natural resource management planning efforts, inventoried resource areas through GIS mapping, and administered a state grant program. Katie received her M.S. in Marine Resource Management from Oregon State University and a B.S. in Ecology from University of Illinois.
The 2009 school year kicked off with a bang for the Student Sustainability Initiative (SSI), the student-run organization administered by the Graham Institute that helps bring one collective voice to sustainability-focused student groups across the U-M campus.

Throughout the fall, the SSI has held extensive “Roundtable” brainstorming sessions, discussions, and presentations to map out substantive goals and objectives for the organization—and how it can best facilitate sustainability practices at U-M.

Based on a group vote, key initiatives for the organization in order of priority are as follows:

1. **Green Building Standards**
2. **Education & Outreach**
3. **Reduce, Reuse, Recycle Efforts**
4. **Local & Sustainable Food**
5. **Socially Responsible Investing**

“The top two items are definitely primary initiatives where we want to see some real traction over the school year,” says SSI Board Member Greg Buzzel (an Erb graduate student). “We really want to see a set of green guidelines for the infrastructure of the university and to see sustainability further incorporated into U-M classrooms.”

To help bring legs to its priorities, the SSI is actively engaging with top-level administrators at the university about sustainability on campus. In fact, just last month, Terry Alexander, Director of the new Office of Campus Sustainability (OCS), met with the group to discuss how the SSI and OCS can work together. Also, in early November, Graham Institute Deputy Director Andrew J. Horning met with the SSI to explain how students may get involved in the “Stakeholder Input” aspect of the new Campus Sustainability Integrated Assessment project at U-M.

Clearly, it promises to be a busy year for the SSI. To learn more, log onto www.sitemaker.umich.edu/ssi.