



Western Michigan University

Strategic Sustainability Initiatives Report

February 12, 2009

President's Universitywide Sustainability Committee

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We no longer have a choice, either humanity adapts its behavior to support sustainable development, meaning it ceases to pollute the environment, allows the renewal of natural resources, and contributes to improve everybody’s well-being, or it signs its own, more or less imminent, death sentence. Education plays a crucial role in training citizens. However, it is not always suited to the needs of future societies, both in developed and developing countries.

Koïchiro Matsuura, UNESCO Director General on the UN DESD, 2006

The world we have made as a result of the level of the thinking we have done thus far creates problems we cannot solve at the same level of thinking at which we created them.

Albert Einstein

Sustainability is not just another issue to be added to an already overcrowded curriculum, but a gateway to a different view of curriculum, of pedagogy, of organizational change, of policy, and particularly of ethos.

Stephen Sterling, 2004

Part I: Executive Summary

WESTERN MICHIGAN UNIVERSITY'S COMMITMENT TO SUSTAINABILITY

In January of 2008, President John M. Dunn set out to make WMU a campus sustainability leader. Building on the tremendous, but under publicized campus greening efforts of our staff, the requirement of our university mission “To advance responsible environmental stewardship”, and a 2003 “Environmental Mission Statement” approved by the Faculty Senate and Western Student Association (see Appendix 1), President Dunn signed the *Talloires Declaration* (see Appendix 2). He also created a Universitywide Sustainability Committee (PUSC) to help assess our progress on sustainability and to begin to chart a course for our future (see Appendix 6 for a list of PUSC members). As a first-step toward developing a full-scale sustainability strategic plan, he charged the Committee with the task of identifying a catalog of strategic sustainability initiatives. Table 1, on the following page, presents a prioritized list of the PUSC’s proposed strategic sustainability initiatives (Appendix 4 presents the PUSC’s complete catalog of potential strategic sustainability initiatives).

THE PROCESS OF DEVELOPING STRATEGIC SUSTAINABILITY INITIATIVES

In an effort to develop a baseline for our campus greening efforts and to systematically identify opportunities for new initiatives, the President’s Universitywide Sustainability Committee reviewed each of the *Talloires Declaration*’s ten action plan items and assessed the status of WMU’s activities in relation to them (see Appendix 3). Our university’s activities mirror national campus sustainability trends in many ways (for details, see “The Greening of Higher Education” in Part II).

During a series of meetings and workshops from March through October 2008, the PUSC engaged in a process of brainstorming, prioritizing, and refining potential sustainability initiatives. Our criterion for culling and prioritizing the initiatives was our collective perception of their ability to fill key gaps and leverage significant, positive change over time. We envision that President Dunn, drawing on his vision and priorities for WMU, will tailor his choice of these initiatives to model WMU’s sustainability commitments and foster a campus culture of sustainability.

The initiatives in Table 1 and Appendix 4 fall into five general categories: (1) Governance and Administration, (2) Operations & In-reach, (3) Community Service & Outreach, (4) Curriculum, and (5) Research. Each initiative is also characterized by whether we considered it to be *technical* (T) or *planned* (P). Technical initiatives are generally amenable to relatively easy, straightforward implementation, which results in a positive payback or only demands a modest allocation of funds. The decision to move forward on technical initiatives typically involves a small number of campus decision-makers. Planned initiatives, on the other hand, often require an extended, ongoing conversation among several campus constituencies; complex, high-levels of coordination; long lead times; or significant allocation of resources. The majority of the recommended initiatives are technical and all of them can be started within the next three years.

An ambitious and achievable set of initiatives can be built up incrementally as resources become available and as organizational capacity is developed. Because certain combinations of these initiatives dovetail synergistically, they can support an integrated planning process that considers WMU’s systems, mission, goals, and strengths and weaknesses in a systematic, anticipatory manner. Finally, because progress resulting from introducing these initiatives will be readily apparent and measurable, it can facilitate capacity building and create a foundation for seamlessly integrating sustainability considerations into the university’s long-term strategic and master planning processes.

We ask that President Dunn adopt this Report as the PUSC’s initial effort to both help chart WMU’s progress on sustainability and outline a course for meeting our sustainability commitments in the future. And we urge him to create a single structure for coordinating and implementing these campus sustainability initiatives (drawing on existing organizational structures or a new Office of Sustainability, as appropriate), which reports directly to the President.

TABLE 1. PRIORITIZED STRATEGIC SUSTAINABILITY INITIATIVES

CAMPUS CATEGORY	RECOMMENDED INITIATIVES	TECHNICAL (T) or PLANNED (P)
I. Governance & Administrative	1. Create a single structure for coordinating and implementing campus sustainability initiatives that transcends academics and operations and reports directly to the President.	T
	2. Perform and Institutionalize a Campus Sustainability Assessment process, which is directly tied to improving practice and policy (see the Campus Sustainability Assessment Project Website for details: http://csap.envs.wmich.edu/pages/res_guidelines.html)	P
	3. Review the <i>WMU Master Plan</i> with an emphasis on addressing and improving campus sustainability (biennially or annually).	T
II. Operations & In-reach	1. Develop a comprehensive campus food-waste reduction strategy and policies. This includes creating a campus composting pilot as a prelude to creating a full-scale composting system.	P
	2. Model green building principles when developing new residential life opportunities.	T
	3. Review and improve the Campus Recycling Program & the Trash to Treasures Program (make recycling more accessible, increase bin availability, etc.).	T
	4. Begin phasing in battery electric, hybrid, & plug-in HE vehicles into the WMU fleet.	T
	5. Review campus water-saving measures and water use with an eye toward creating a new, comprehensive campus water reduction plan and policies.	T/P
III. Community Service & Outreach	1. Create a cooperative, community sustainability planning initiative starting with local governments & educational institutions in Portage and Kalamazoo (preliminary discussions are now underway to launch this effort by starting with exchanging best-practices).	P
	2. Integrate sustainability into Student Orientation materials & offerings (use peer outreach).	T
	3. Create monthly or bimonthly Campus Sustainability Roundtables (possibly at lunch) open to the entire campus community, sponsored by the President's Office.	T
	4. Educate Residence Hall Directors on sustainability issues and opportunities.	T
IV. Curriculum	1. Following WMU's "General Principles of Curriculum Change" (<i>GPoCC</i>) & using the online <i>Curriculum Change Guide</i> , integrate sustainability into all curricula & throughout every College.	P
	2. Create more opportunities for structured internships, projects, theses, etc., for students to collaborate with staff, administrators, and faculty to address key campus sustainability issues.	T
	3. Create Summer Faculty Development Workshops for facilitating integration and infusion of sustainability throughout the curriculum (one possibility would be to start with the FYS).	T/P
	4. Following WMU's <i>GPoCC</i> , develop new environment- & sustainability-oriented degree combinations, minors, & concentrations (examples include: Green Business & ENVS; Ecological Engineering/Green Design & ENVS; Education for Sustainable Development/Environmental Education & ENVS; etc.). Special opportunities exist for new/restructured undergraduate & graduate programs in "Green Materials, Design, Energy, & Manufacturing" & "Education for Sustainability Teacher Training".	P
V. Research (Unprioritized list)*	• Create a focused, coordinated effort between OVPR & the Development Office to expand external funding for sustainability research and teaching.	T/P
	• Create a new Cross-College "Center for Interdisciplinary Sustainability Research, Teaching, Operations, and Outreach.	P
	• Create a Green Materials, Design, Energy, & Manufacturing Research Center.	T
	• Explore strategies for developing a "Green Technology" focus for future BTR park occupants.	T
	• Perform a baseline and follow-up study of a campus building after a green renovation to assess worker/student productivity effects with green buildings.	P
	• Develop competitive research grants for student sustainability research projects.	T

*This list is unprioritized because research is a special category. The PUSC Research Subcommittee believes that in order to initiate a successful sustainability research initiative, WMU will have to address two sets of issues (Structural & Strategic) before attempting to prioritize a list of potential research opportunities.

Part II: Background and Details

THE CHALLENGE OF SUSTAINABILITY

As you read this, the consumption habits and lifestyles of more than 17 million college students are being shaped in our nation's academic institutions, and most of them are not being educated or encouraged to evaluate the impacts of their consumption and lifestyle choices on themselves, others, or the future. The United States' 4,200 universities and colleges—as generators of knowledge, innovation, and expectations—serve as trendsetters and beacons for the future. They also act as microcosms of society—housing and feeding people, performing research, maintaining facilities, purchasing, administering projects, investing, balancing budgets, and, hopefully, adhering to environmental laws. In performing these activities, they use large quantities of water, energy, toxic chemicals, natural resources, consumer products, labor, and capital and thus generate a prodigious ecocultural wake.

Society is likely to be challenged by continued—and unprecedented—environmental, political, and social problems this century. While the global economy has generally become more materials and energy efficient, both global population and per capita consumption continue to rise—and generate with them increasingly destructive impacts. Those of us in the United States represent less than 4.5% of the world's population, yet we consume approximately 25% of its resources and produce roughly 25% of its waste.

Managing consumption—and its negative impacts—will be difficult enough for wealthy nations. Fairness and empathy demand that we acknowledge the necessity for consumption increases in the least well-off nations. Taking into account the increasing consumption of less wealthy nations intensifies the pressure to identify substantive, creative, and collaborative responses. The United Nations Decade of Education for Sustainable Development (2005–2014) was created both in recognition of the role of education in shaping future consumption habits and in the global education community's potential for helping stimulate creative responses to this urgent need (see Appendix 5 for more details on the UN DESD).

If society is to initiate a meaningful midcourse correction, a deep rethinking of the purpose, nature, and responsibilities of higher education will be in order (Gough and Scott, 2007; Glasser, 2003 & 2005). First, institutions of higher learning must learn to balance developing disciplinary expertise with cultivating ecocultural literacy and “out of the box” thinking skills. Second, they must equip students to learn how the consequences of our policies, practices, and daily life decisions ripple throughout our communities and the world—in both space and time. And they must prepare students to master the tools, techniques, and habits of mind necessary for assessing these impacts—and for solving real-world problems. Finally, institutions of higher learning must come to appreciate the significance of modeling their sustainability commitments (Glasser, 2007). Viewing the campus as a living, learning laboratory, they must demonstrate their commitment to making society more sustainable by incorporating sustainability considerations directly into teaching, research, operations, purchasing, investing, administration, and their interactions with local, regional, and international communities.

THE GREENING OF HIGHER EDUCATION—A BRIEF STATUS REPORT

Despite many admirable efforts, recent studies indicate that higher education (HE) still has a long way to go (SEI, 2008; McIntosh, et al., 2008; Rappaport, 2008; Glasser, 2002). The “College Sustainability Report Card” produced by the Sustainable Endowments Institute (SEI), which is now in its third year, measures campus greening progress at the 300 academic institutions in the U.S. with the largest endowments. SEI measures campus greening progress in terms of two categories, operations and endowments, and assigns an aggregated “grade” to each participating school. The SEI report states that while 4/5 of the schools have improved since the Report Card was initiated in

2007 and 1/2 of the schools now have full-time staff devoted to sustainability, only 15 out of the 300 surveyed HE institutions were identified as “College Sustainability Leaders” (SEI, 2008).

The National Wildlife Federation’s (NWF) Campus Ecology Program in collaboration with Princeton Survey Research Associates International has produced the only other national survey on sustainability in HE (McIntosh, et al., 2008, 2001). The NWF’s “National Report Card on Sustainability in Higher Education” is more detailed, comprehensive, and representative than the SEI study. It is sent to all HE institutions in the U.S. and has a 27% participation rate (1,068 campuses). It explores four categories: leadership, management, academics, and operations, but it does not rank or grade individual campuses. Its stated purpose is to measure the collective percentage of schools engaged in “good” sustainability practices. This survey was first produced in 2001. A follow-up study produced in 2008 enables reporting on trends.

The National Report Card on Sustainability in Higher Education reports that campus leaders now rank environmental and sustainability programs among their highest priorities. In addition, these leaders have also put more structures in place to broaden and nurture campus-wide engagement on sustainability (McIntosh, et al., 2008). The report cites modest efficiency improvements in operations, the most marked in water conservation. Also of significant note is a trend by campus Presidents to make formal commitments to reduce greenhouse gas (GHG) emissions (see the ACUPCC website, which now lists 588 signatories to its President’s Climate Commitment). Transportation issues (congestion, pollution, and other impacts associated with commuting), waste diversion rates, and sustainable landscaping, however, are cited as showing little or no progress. Most serious and significant, perhaps, is a demonstrable decline in formal initiatives for teaching and learning about sustainability. The NWF report cites the “biggest missed opportunity” as “educating about sustainability to pre-service teachers and all undergraduates” (McIntosh, et al., 2008: 8).

In sum, progress on campus greening nationally has generally been slow, spotty, and piecemeal. Two conclusions from Ph.D. dissertations from over five years ago are still relevant. First, even among institutions that have signed an international agreement related to sustainability in higher education such as the *Talloires Declaration*, few have carried out implementation plans (Wright, 2002). Second, most *Talloires* signatories, which represent a small percentage of higher education institutions, are still “in the beginning stages of environmental management and few have begun to undertake major organizational changes” (Shriberg, 2002: 291).

While most academic institutions have yet to seriously address sustainability issues in a comprehensive manner, a few have. The most outstanding of these institutions share three important characteristics (Glasser, 2003). First, these “sustainability leaders” have adopted serious strategies for systematically addressing the sustainability of their institutions. They have built a “campus culture of sustainability” by creating policies that state their commitment to sustainability and they have plans in place that lay out how they intend to achieve them. Second, these institutions have provided the resources to implement their sustainability plans. They hire staff, form committees, allocate or re-allocate budgets, identify grants, and show clear administrative support for sustainability initiatives. Third, these sustainability leaders keep track of where they have been, where they are, and where they are headed in terms of sustainability. They measure and track their progress toward sustainability, facilitate continuous improvement by updating goals and benchmarks, and regularly meet to share learning and identify new opportunities for collaboration.

THE CASE FOR STRATEGIC SUSTAINABILITY INITIATIVES AT WMU

WMU’s greatest successes are in the areas of improving the efficiency and sustainability of operations and, most recently, in increasing awareness of sustainability and building an institutional culture of sustainability. Spurred on by President Dunn’s and Vice President for Business and Finance Lowell Rinker’s visionary leadership, campus officials are increasingly making environmental and sustainability programs among their highest priorities. These campus leaders have also begun to

put more structures in place to broaden and nurture campus-wide engagement on sustainability, such as involving students and graduates in researching potential campus greening initiatives.

Early on WMU recognized the significance of interdisciplinary teaching, research, and outreach on the environment with the creation of the Environmental Studies Program in 1972 and the Environmental Institute in 1999. For the most part, however, previous campus environmental and sustainability initiatives have been ad hoc and uncoordinated. They have largely been the result of a small group of individual campus sustainability champions—students, administrators, staff, or faculty—that often didn’t know each other, collaborate extensively, or publicize their work. Our most significant weaknesses—and perhaps our greatest opportunities—lie in the areas of teaching and learning and research: educating for environmentally responsible stewardship and sustainability; fostering environmental literacy for all; enhancing the capacity of primary and secondary schools to educate about—and for—sustainability; broadening service and outreach; and promoting interdisciplinary collaboration to address the momentous, real-world problems facing our region and the planet.

In one key respect—inspired leadership from top administration on campus sustainability—our experiences differ from the norm in U.S. higher education. President Dunn’s establishment of the PUSC and V.P. Rinker’s support for the PUSC’s activities have led to a substantial increase in WMU’s capacity to model sustainability in all of its functions and activities. The broad-based membership of the PUSC, which includes undergraduate and graduate students, administrators, operations staff, and faculty from all across the university, makes significant inroads toward both helping to broaden interest in sustainability on campus and make WMU’s approach to sustainability more systematic and coordinated.

In particular, WMU is now positioned to leverage and expand on our existing sustainability efforts and commitments by realizing the three critical characteristics that set apart the most outstanding campus sustainability success stories. To do so, we need to create and institutionalize processes for: (1) developing open, collaborative sustainability strategic planning; (2) identifying and allocating the necessary resources to successfully implement our plans; and (3) setting both achievable goals and targets *and* measuring and tracking our success so as to stimulate continuous improvement. Although much challenging work remains ahead, we believe President Dunn is now poised to move WMU into SEI’s elite class of national “College Sustainability Leaders” by choosing an array of high-leverage, strategic sustainability initiatives from the catalog identified by the PUSC.

Creating this “President’s array of strategic sustainability initiatives” in the coming months could be increasingly important—and timely—given the impending changes in Washington. The provisions of the Higher Education Sustainability Act (HESA) were built into the College Opportunity and Affordability Act (HR 4137, which was passed by the House in July). Should the designated appropriations be made available, \$50 million will be allocated for campus sustainability initiatives. HESA may be portending a much more substantive shift in higher education nationally and internationally—WMU has the opportunity to be at the front of this pack, leading the charge.

RECENT PROGRESS TOWARD SUSTAINABILITY

In a very short time this process of identifying and developing strategic sustainability initiatives has borne significant fruit. President Dunn’s establishment of the PUSC has led to a substantial increase in awareness of sustainability; stimulated a more systematic approach to campus greening, engaged more students in research on significant, real-world problems; and generated several projects that will continue to build momentum for a campus culture of sustainability.

With generous support from V.P. Rinker’s Office of Business and Finance, the PUSC has generated several early successes and created important, on-going projects. Some highlights include:

1. Creating a “one-stop” campus sustainability information portal: (<http://www.wmich.edu/sustainability/>), which serves as both a hub and an information

resource for educating the campus, promoting collaboration, and publicizing our sustainability activities to the region, state, and nation.

2. Formally connecting WMU to local and national sustainability/campus greening efforts by joining the Southwest Michigan Sustainable Business Forum (SWMSBF) and the Association for the Advancement of Sustainability in Higher Education (AASHE). Teams of staff, students, and faculty represented WMU at both the AASHE biennial meeting in Raleigh and the Statewide Michigan Sustainable Business Forum in Kalamazoo in November 2008.
3. Initiating a comprehensive food waste reduction effort. This project includes a nearly completed review and evaluation of national food composting options and opportunities (produced by a recent graduate), a collaborative scoping study to reduce WMU's wastewater commodity charges, and a tray elimination program that has been implemented in three of Dining Services' dining halls.
4. Running a pilot study and evaluation of regionally produced, cost-effective, 100% post consumer waste, chlorine free, Forest Stewardship Council certified paper on the Administration Building's copiers and printers as a prequel to considering a new paper purchasing policy.
5. Developing a "Green Guide" with clear, practical solutions for helping students, graduates, staff, and faculty connect their commitment to sustainability to meaningful lifestyle and behavioral changes. This Green Guide will be tied to an online "Campus Sustainability Pledge" (available to students, staff, and faculty) that will help track our individual sustainability commitments and identify the effectiveness of various solutions and strategies over time.
6. Exploring the creation of a "Community Sustainability Roundtable" with other local higher education leaders, local governments, public school districts, foundations, and business leaders to expand stakeholder involvement and broaden community service through the sharing of sustainability best-practices.
7. Building on several student-initiated GHG emissions inventories of WMU and spurred on by a winter 2008 resolution by WSA, the PUSC is continuing to explore what it would require for WMU to implement The Association of College and University Presidents Climate Commitment (ACUPCC). The ACUPCC, which was launched in June of 2007 and now has 588 signatories, requires both GHG inventories and "institutional action plans" for achieving climate neutrality. WMU has already achieved many of the requirements of the ACUPCC, but the requirement for achieving "climate neutrality" has generated significant concern and debate regarding the feasibility of implementation. As recognition of both our responsibility for radical reductions in GHG emissions and our commitment to exploring new and innovative social learning strategies for promoting sustainable solutions, four members of the PUSC attended the invitation only Second ACUPCC Climate Summit in Grand Rapids in June, 2008—one student (as a conference assistant), two staff, and one faculty member.
8. Coordinating the process of creating a WMU Sustainability Logo to better advertise and promote WMU's efforts to foster and model sustainability.

CONCLUSION

This *Strategic Sustainability Initiatives Report* is intended to set the stage for comprehensive, collaborative, campus-wide planning on sustainability. It builds on a legacy of high achievement in greening campus operations and, most recently, the vision of top administrators to infuse sustainability into all the activities and functions of our university. Acting on these initiatives—modeling our sustainability commitments with increasing vigor and efficacy—will position WMU to become a national campus sustainability leader. It will also go a long way towards preparing our students to be innovative leaders in their own chosen fields of expertise while building a sustainable future for all.

Previous campus sustainability initiatives at WMU, however significant, have been largely unsystematic and uncoordinated. They have typically been the result of a small group of individual campus sustainability champions—students, administrators, staff, or faculty—that often didn't know each other, collaborate extensively, or meet on a regular basis. By taking an open, coordinated, strategic planning approach, WMU has the opportunity to leverage and expand on our existing sustainability efforts and commitments.

The PUSC's *Strategic Sustainability Initiatives Report* presents an ambitious and achievable catalog of sustainability initiatives—in the five general categories of Governance and Administration, Operations & In-reach, Community Service & Outreach, Curriculum, and Research. The majority of the proposed initiatives can be implemented over the short-term (or at least begin to be phased-in over the next three years). Because they can be built up incrementally as resources become available and because certain combinations of these initiatives dovetail synergistically, they can support an integrated planning process that considers WMU's systems, mission, goals, and strengths and weaknesses in a systematic, anticipatory manner. Furthermore, because progress resulting from introducing these initiatives will be readily apparent and measurable, (although not always in easily quantifiable terms), it can facilitate capacity building and create a foundation for seamlessly integrating sustainability considerations into the university's long-term strategic and master planning processes.

With these proposed initiatives, the WMU community is poised to address the challenges of our time in substantive and meaningful ways. By acting on these proposed initiatives, WMU has the opportunity to distinguish itself not only regionally, but also nationally.

We ask that President Dunn adopt this Report as the PUSC's initial effort to both help chart WMU's progress on sustainability and outline a course for meeting our sustainability commitments in the future. And we urge him to create a single structure for coordinating and implementing these campus sustainability initiatives (drawing on existing organizational structures or a new Office of Sustainability, as appropriate), which reports directly to the President.

REFERENCES

- Association for the Advancement of Sustainability in Higher Education (AASHE) website:
<http://www.aashe.org/>
- Association of College and University Presidents Climate Commitment (ACUPCC) website:
<http://www.presidentsclimatecommitment.org/>
- Barlett, Peggy F. and Geoffrey W. Chase, eds. (2004) *Sustainability on Campus: Stories and Strategies for Change*, Cambridge, MA: MIT Press.
- Glasser, Harold (2007) “Minding the Gap: The Role of Social Learning in Linking Our Stated Desire for a More Sustainable World to Our Everyday Actions and Policies”, in Arjen E. J. Wals ed., *Social Learning: Toward a More Sustainable World*. Wageningen Academic Publishers: Wageningen, The Netherlands, pp. 35-61.
- Glasser, Harold (2005) “The Sustainability Challenge: Higher Education for a Higher Purpose”, *Heartstone*, 6: 23-31.
- Glasser, Harold (2003). “Learning Our Way to a Sustainable and Desirable World: Some Ideas Inspired by Arne Naess and Deep Ecology”, in Corcoran, P. B. and Arjen E. J. Wals eds., *Higher Education and the Challenge of Sustainability: Problematics, Promise and Practice*, Dordrecht, The Netherlands: Kluwer Academic, pp. 131-148.
- Glasser, Harold (2002). “Murky Grades on Campus Sustainability: A Survey Reveals a Widespread Unwillingness to Make the Environment a High Priority.” *Association of Governing Boards Trusteeship* 10 (March-April): 34-35.
- Glasser, Harold and Andrew Nixon (2002). The Campus Sustainability Assessment Project website:
<http://csap.envs.wmich.edu/>
- Gough, Stephen and William Scott (2007) *Higher Education and Sustainable Development: Paradox and Possibility*, London and New York: Routledge.
- McIntosh Ph.D., Mary, Kenneth Galalswyk, Julian Keniry, and David J. Eagan (Survey conducted by Princeton Survey Research Associates) (2008) *Campus Environment: A National Report Card on Sustainability in Higher Education—Trends and New Developments in College and University Leadership, Academics and Outreach*, Reston, VA: National Wildlife Federation. Available at:
<http://www.nwf.org/campusEcology/docs/CampusReportFinal.pdf>
- McIntosh Ph.D., Mary, with Kathleen Cacciola, Stephen Clermont, Julian Keniry; and Survey conducted by Princeton Survey Research Associates (2001) *State of the Campus Environment: A National Report Card on Environmental Performance and Sustainability in Higher Education*, Reston, VA: National Wildlife Federation. Available at:
<http://www.nwf.org/campusecology/resources/HTML/stateofthecampusreport.cfm>
- Rappaport, Ann (2008) “Greening College Campuses: Behind the Headlines”, *Environment*, 50: 7-16.
- Shriberg, Michael (2002). *Sustainability in U.S. Higher Education: Organizational Factors Influencing Campus Environmental Performance and Leadership*. Ph.D. dissertation. University of Michigan:
<http://sitemaker.umich.edu/snre-student-mshriber/files/shriberg.pdf>
- Simpson, Walter, ed. (2008) *The Green Campus: Meeting the Challenge of Environmental Sustainability*, Alexandria, VA: Association of Physical Plant Administrators of Colleges and Universities.
- Sterling, Stephen (2004) “Higher Education, Sustainability, and the Role of Systemic Learning”, in Corcoran, P. B. and Arjen E. J. Wals eds., *Higher Education and the Challenge of Sustainability: Problematics, Promise and Practice*., Dordrecht, The Netherlands: Kluwer Academic, pp. 49-70.
- Sustainable Endowments Institute (SEI) (2008). *College Sustainability Report Card 2009* website:
<http://www.GreenReportCard.org/>
- UNESCO’s United Nations Decade of Education for Sustainable Development (2005-2014) website:
http://portal.unesco.org/education/en/ev.php-URL_ID=27234&URL_DO=DO_TOPIC&URL_SECTION=201.html
- United Nations University Regional Centers of Expertise in Education for Sustainable Development website:
http://www.ias.unu.edu/sub_page.aspx?catID=108&ddlID=183
- University Leaders for a Sustainable Future website:
<http://www.ulsf.org/>
- Wright, Tarah (2002). “A Review of Definitions and Frameworks for Sustainability in Higher Education.” *International Journal of Sustainability in Higher Education (IJSHE)* 3(3): 203-20 & *Higher Education Policy* 15(2) 2002: 105-20.

APPENDIX 1: WMU “Environmental Mission Statement” (December 15, 2003)

Approved by the WMU Faculty Senate and the Western Student Association

COMMITMENT:

We, the Western Michigan University community, are dedicated to creating a safe, healthy, aesthetically pleasing, and sustainable campus. Consistent with the University’s mission to “advance responsible environmental stewardship,” we affirm our commitment to foster:

- environmental awareness,
- understanding of and responsibility for the physical environment,
- just and ecologically sustainable resource use,
- sensitivity to the needs and aspirations of future generations, and
- global thinking with local action.

As a learning institution, we appreciate that planning for sustainability will be an ongoing, intellectually engaging process.

We establish this “Environmental Mission Statement” to identify general goals and strategies for implementing our commitment to environmental responsibility. By enacting and implementing this Mission Statement, Western Michigan University will set a positive example and confirm its role as a leader in promoting environmental stewardship on campus and beyond.

GOALS AND STRATEGIES:

To meet its commitment to advance responsible environmental stewardship, the Western Michigan University community will:

- Recommend that the President sign the Talloires Declaration;
- Make environmentally sound practices a core value of our teaching, research, service, and operations;
- Create opportunities for all students, faculty, and staff to become environmentally literate;
- Prepare graduates to have the knowledge, skills, tools, and values to become leaders in the worldwide effort to promote just and ecologically sustainable communities;
- Conduct our business practices in accordance with this Environmental Mission Statement;
- Build on existing programs and initiatives in energy management, recycling, waste management, water conservation, transportation planning, ecological landscaping, and sustainable design as well as create and promote new programs to fully implement this Environmental Mission Statement throughout the University;
- Develop a plan for assessing the University’s current strengths and weaknesses. Perform this assessment and prepare a WMU “Sustainability Strategic Plan.” This plan will include recommendations, achievable goals and targets, and an ongoing monitoring and reporting strategy; and
- Allocate the fiscal and human resources necessary to implement this Environmental Mission Statement.

WMU Sustainability Committee Members: Harold Glasser (chair), Evie Asken, Wayne Fuqua, Richard Gershon, Dave Lemberg, Carl Newton, Carolyn Noack, Christopher Pyzik, Bob White, Ryan Teelander (student), Peter Voice (graduate student), Robert Beam (*ex officio*), Paul Pancella (*ex officio*).

APPENDIX 2: *The Talloires Declaration*

We, the presidents, rectors, and vice chancellors of universities from all regions of the world are deeply concerned about the unprecedented scale and speed of environmental pollution and degradation, and the depletion of natural resources.

Local, regional, and global air and water pollution; accumulation and distribution of toxic wastes; destruction and depletion of forests, soil, and water; depletion of the ozone layer and emission of "green house" gases threaten the survival of humans and thousands of other living species, the integrity of the earth and its biodiversity, the security of nations, and the heritage of future generations. These environmental changes are caused by inequitable and unsustainable production and consumption patterns that aggravate poverty in many regions of the world.

We believe that urgent actions are needed to address these fundamental problems and reverse the trends. Stabilization of human population, adoption of environmentally sound industrial and agricultural technologies, reforestation, and ecological restoration are crucial elements in creating an equitable and sustainable future for all humankind in harmony with nature.

Universities have a major role in the education, research, policy formation, and information exchange necessary to make these goals possible. Thus, university leaders must initiate and support mobilization of internal and external resources so that their institutions respond to this urgent challenge.

We, therefore, agree to take the following actions:

1. Increase Awareness of Environmentally Sustainable Development

Use every opportunity to raise public, government, industry, foundation, and university awareness by openly addressing the urgent need to move toward an environmentally sustainable future.

2. Create an Institutional Culture of Sustainability

Encourage all universities to engage in education, research, policy formation, and information exchange on population, environment, and development to move toward global sustainability.

3. Educate for Environmentally Responsible Citizenship

Establish programs to produce expertise in environmental management, sustainable economic development, population, and related fields to ensure that all university graduates are environmentally literate and have the awareness and understanding to be ecologically responsible citizens.

4. Foster Environmental Literacy For All

Create programs to develop the capability of university faculty to teach environmental literacy to all undergraduate, graduate, and professional students.

5. Practice Institutional Ecology

Set an example of environmental responsibility by establishing institutional ecology policies and practices of resource conservation, recycling, waste reduction, and environmentally sound operations.

6. Involve All Stakeholders

Encourage involvement of government, foundations, and industry in supporting interdisciplinary research, education, policy formation, and information exchange in environmentally sustainable development. Expand work with community and nongovernmental organizations to assist in finding solutions to environmental problems.

7. Collaborate for Interdisciplinary Approaches

Convene university faculty and administrators with environmental practitioners to develop interdisciplinary approaches to curricula, research initiatives, operations, and outreach activities that support an environmentally sustainable future.

8. Enhance Capacity of Primary and Secondary Schools

Establish partnerships with primary and secondary schools to help develop the capacity for interdisciplinary teaching about population, environment, and sustainable development.

9. Broaden Service and Outreach Nationally and Internationally

Work with national and international organizations to promote a worldwide university effort toward a sustainable future.

10. Maintain the Movement

Establish a Secretariat and a steering committee to continue this momentum, and to inform and support each other's efforts in carrying out this declaration.

Notes:

1. 1994 Updated Version, downloaded from the University Leaders for a Sustainable Future website on October 31, 2008:

http://www.ulsf.org/programs_talloires_td.html

2. The *Talloires Declaration* ten-point action plan for integrating sustainability into teaching, research, operations, and outreach has been signed by almost 400 presidents and chancellors from over 40 countries.

APPENDIX 3: WMU Sustainability Activities vis-à-vis the *Talloires Declaration*

TAILLOIRES DECLARATION 10 POINT ACTION PLAN ITEM*	OVERVIEW OF WMU SUSTAINABILITY ACTIVITIES (The following list is non-exhaustive & highlights recent efforts)	EXTENT OF PROGRESS
1. <i>Increase Awareness of Environmentally Sustainable Development</i>	<ul style="list-style-type: none"> • A full-service Campus Sustainability website went online (10/08). • Joined The Association for the Advancement of Sustainability in HE (2008). • Joined the Southwest Michigan Sustainable Business Forum (2008). • Students for a Sustainable Earth & The Gibbs House provide a variety of opportunities for the campus and community to learn about sustainability. • The ENVIS Program, which services nearly 200 majors & minors, will introduce its Gwen Frostic Lecture Series (Spring 09). • The Environmental Institute coordinates several environment & sustainability research & outreach projects, including the the Environmental Research Center. 	
2. <i>Create an Institutional Culture of Sustainability</i>	<ul style="list-style-type: none"> • President Dunn signed the <i>Talloires Declaration</i> (1/1/08). • President Dunn created a Universitywide Sustainability Committee (PUSC) in January, 2008 to develop a proposal for strategic sustainability initiatives as a first step to developing a Sustainability Strategic Plan for the campus. • The PUSC includes undergraduate & graduate students, administrators, operations staff, & faculty from all across the university. 	
3. <i>Educate for Environmentally Responsible Citizenship</i>	<ul style="list-style-type: none"> • Significant opportunities exist to infuse sustainability throughout the university curriculum; to create specialized certificates or degrees in management, engineering, business, education, etc.; & to develop interdisciplinary, sust. grad. degrees. 	
4. <i>Foster Environmental Literacy For All</i>	<ul style="list-style-type: none"> • Currently no initiatives exist on campus to enhance the capability of university faculty to deliver environmental literacy & education for sustainability to all undergraduate, graduate, & professional students. 	
5. <i>Practice Institutional Ecology</i>	<ul style="list-style-type: none"> • A Recycling Coordinator, first hired in 90', now also manages Trash-to-Treasures, Recycle Mania, & Waste Reduction Services. • Total campus water consumption has been reduced by 50% since 1999. • Over the last 12 yrs, state-of-the art energy conservation measures (daylight harvesting, advanced controls, a CFL policy) have enabled a 19% increase in building square footage while generating a 17% reduction in total energy use. • Building Custodial and Support Services has implemented an innovative & ambitious "Green Cleaning Policy" throughout campus. • A 2001 30% recycled paper purchasing policy was reinforced, Fall 2008. • A variety of significant landscape initiatives have been created to implement USGBC Leadership in Energy & Environmental Design (LEED) protocols for existing buildings (see WMU Sust. website under "Policies & Guidelines"). • Dining Services eliminated trays in three dining halls (Fall 08), biodegradable packaging is being piloted, & food waste composting is being researched. • Facility Life Cycle Design Guidelines exist for all new buildings & retrofits. • PV & wind RE demonstration/research projects have been introduced. • Environmentally conscious management of Arcadia Creek, Klienstuck Preserve, Asylum Lake Preserve, & the Business, Technology, and Research Park • The PUSC is exploring the feasibility of implementing the Association of College & University Presidents Climate Commitment (ACUPCC). 	
6. <i>Involve All Stakeholders</i>	<ul style="list-style-type: none"> • At President Dunn's request, the PUSC is exploring the creation of a cooperative community sustainability planning initiative with the Cities of Kalamazoo and Portage, local foundations, and other local HE institutions. 	
7. <i>Collaborate for Interdisciplinary Approaches</i>	<ul style="list-style-type: none"> • Creating the PUSC was an important step in helping to facilitate interdisciplinary collaboration to support an environmentally sustainable future. • Many opportunities exist both to overcome institutional barriers and to create meaningful incentives for collaborative curriculum development, research initiatives, operations and facilities management, campus policies & master planning, and outreach activities to support a sustainable future. 	
8. <i>Enhance Capacity of Primary and Secondary Schools</i>	<ul style="list-style-type: none"> • A small group of faculty collaborate with KPS, GRPS, private schools, and the State on environment/sustainability curriculum & professional development. • The PUSC has identified a tremendous opportunity to create pre- & post-service training in education for sustainability. 	
9. <i>Broaden Service and Outreach Nationally and Internationally</i>	<ul style="list-style-type: none"> • A few faculty & staff actively work on sustainability research/outreach projects (such as campus greening or the United Nations Decade of Education for Sustainable Development, 2005-2014)—there is great potential for improvement by initiating policies that link promotion to such activities. 	
10. <i>Maintain the Movement</i>	<ul style="list-style-type: none"> • While creation of the PUSC was a critical step, additional resources and more dedicated staff time will be necessary to maintain the momentum, continue to implement our ambitious sustainability agenda, and stimulate continuous improvement through effective assessment, goal setting, & benchmarking. 	
<p>— KEY —</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div> Needs improvement</div> <div> No marked advance</div> <div> Significant improvement</div> </div>		

*For full details on the *Talloires Declaration*, with descriptions of each action plan item, see Appendix 2.

APPENDIX 4: Complete Catalog of Strategic Sustainability Initiatives

Numbered initiatives are recommended and prioritized. Bulleted initiatives represent additional potential initiatives for each category, except in the case of the Research Initiatives, which the PUSC views as a special category. The Research Initiatives have purposefully been left unprioritized because the PUSC believes that in order to initiate a successful sustainability research initiative, WMU must address two sets of high-level issues (Structural & Strategic) before attempting to prioritize a list of potential research opportunities.

I. GOVERNANCE & ADMINISTRATION INITIATIVES

1. Create a single structure for coordinating and implementing campus sustainability initiatives that transcends academics and operations and reports directly to the President.
2. Perform and Institutionalize a Campus Sustainability Assessment process, which is directly tied to improving practice and policy (see the Campus Sustainability Assessment Project Website for details: http://csap.envs.wmich.edu/pages/res_guidelines.html)
3. Review the WMU Master Plan with an emphasis on addressing and improving campus sustainability (biennially or annually).
 - Create a sub-committee of the PUSC to continue to research and evaluate implementation and signing of the Association of College and University Presidents' Climate Commitment (with a report back to President Dunn within six months).
 - Create a "Sustainability Revolving Loan Fund", for collaborative projects (for details and a guide for creating Sustainability Revolving Loan Funds, see: <http://www.aashe.org/resources/pdf/CERF.pdf>)
 - Create a Comprehensive Campus Sustainability Strategic Plan or integrate such an effort into the existing campus strategic planning process.

II. OPERATIONS/INREACH INITIATIVES:

1. Develop a comprehensive campus food-waste reduction strategy and policies. This includes creating a campus composting pilot project as a prelude to creating a full-scale composting system.
2. Model green building principles when developing new residential life opportunities.
3. Review and improve the Campus Recycling Program & Trash to Treasures Program (make recycling more accessible, increase bin availability, etc.).
4. Begin phasing in battery electric and hybrid vehicles into the WMU fleet.
5. Review campus water-saving measures and water use with an eye toward creating a new, comprehensive campus water reduction plan and policies.
 - Create a plan for comprehensive review of *all* campus purchasing policies and contracts in relation to sustainability considerations.
 - Explore the feasibility of creating more responsible policies and procedures for computer equipment, such as a laptop battery collection program, an on-campus ink-jet cartridge refill center, and a LCD for CRT monitor exchange program.
 - Establish a formal initiative to explore using green roofs on retrofits and new construction—including identifying opportunities for grants and research opportunities.
 - Seek special grant funding for specific operations/facilities projects such as chemical free water treatment with campus cooling systems, low flow fixtures, etc.
 - Work with WSA to research creating an initiative to increase requirements for recycled content for all paper purchased on campus (a minimum of 75% post consumer waste).
 - Explore the creation of healthier and more sustainable local food purchasing policies for Dining Services.
 - Work with student groups to facilitate the creation of a student-run café that emphasize local produce and organic foods.
 - Create a student-run, campus permaculture test garden in a prominent place on campus.
 - Review, assess, and revise (if necessary and as appropriate) the existing "WMU Facility Life Cycle Design Guidelines".
 - Explore the creation of campus policies and programs to reduce motorized vehicles from the campus core and promote bicycle use, such as a "free campus loaner bike program", a bike repair coop, additional secure bike parking, and collaborating with the City to promote safe, efficient ingress and egress between campus and downtown and campus and major off-campus housing corridors.

- Assess the level of interest in and feasibility of adopting an online ridesharing and carpooling platform for WMU (such as Zipride: <http://www.zipride.com/>) to facilitate reduction of motorized vehicles from the campus core.

III. COMMUNITY SERVICE & OUTREACH INITIATIVES

1. Create a Cooperative sustainability planning initiative starting with local governments & educational institutions in Portage and Kalamazoo (preliminary discussions are now underway to launch this effort by starting with exchanging best-practices).
2. Integrate sustainability into Student Orientation materials and offerings (use peer outreach).
3. Create monthly or bimonthly Campus Sustainability Roundtables (possibly at lunch) open to the entire campus community, sponsored by the President's Office
4. Educate Residence Hall Directors on sustainability issues and opportunities.
 - Make "Ecomugs" available to all incoming students (give them out at Bronco Bash) and have them be usable in all campus cafes and dining halls.
 - Create a "Leave your car at home!" challenge.
 - Sponsor clean-up events around Earth Day.
 - Create a Sustainability Film Series on campus.
 - Create a high-profile President-sponsored Campus Sustainability Speakers Series.
 - Create a "Campus Sustainability Week" to highlight our activities and promote continued discussion, cooperation, and collaboration.

IV. CURRICULUM INITIATIVES

1. Following WMU's "General Principles of Curriculum Change" (*GPoCC*) & using the online *Curriculum Change Guide*, integrate sustainability into all curricula & throughout every College.
2. Create more opportunities for structured internships, projects, theses, etc., for students to collaborate with staff, administrators, and faculty to address key campus sustainability issues.
3. Create Summer Faculty Development Workshops for facilitating integration and infusion of sustainability throughout the curriculum (one possibility would be to start with the FYS).
4. Following WMU's *GPoCC*, develop new environment- & sustainability-oriented degree combinations, minors, & concentrations (examples include: Green Business & ENVS; Ecological Engineering/Green Design & ENVS; Education for Sustainable Development/Environmental Education & ENVS; etc.). Special opportunities exist for new/restructured undergraduate & graduate programs in "Green Materials, Design, Energy, & Manufacturing" & "Education for Sustainability Teacher Training".
 - Create opportunities for Environment- and Sustainability-focused career counseling.
 - Improve the efficacy of the Gibbs House for Environmental Research & Education by appointing a faculty member to coordinate, assign credit, and supervise student research projects.

V. UNPRIORITIZED LIST OF RESEARCH INITIATIVES

- Create a focused effort through OVPR & the Development Office to expand external funding for sustainability research and teaching.
- Create a new Cross-College "Center for Interdisciplinary Sustainability Research, Teaching, Operations, and Outreach".
- Create a Green Materials, Design, Energy, & Manufacturing Research Center.
- Explore strategies for developing a "Green Technology" focus for future BTR park occupants.
- Perform a baseline and follow-up study of a campus building after a green renovation to assess worker/student productivity effects with green buildings.
- Develop competitive research grants for student sustainability research projects.

APPENDIX 5: Description of the United Nations Decade of Education for Sustainable Development (DESD) and United Nations University’s Regional Centers of Expertise in Education for Sustainable Development

THE UN DESD:

The United Nations Decade of Education for Sustainable Development (UN DESD 2005–2014) was created as an outgrowth of the Johannesburg (Rio + 10) Earth Summit in 2002. There was a profound awareness among many UN leaders that despite a host of international declarations regarding environment and sustainability problems since the Stockholm Conference on the Human Environment (1972) and a similar host of international environmental education meetings and declarations since the Tbilisi Intergovernmental Conference on Environmental Education (1977), the planet has generally become more unsustainable.

These UN leaders worked to create a UN supported structure that could facilitate bridging the gap between our stated desires for a healthier, equitable, culturally and biologically diverse, peaceful, and more sustainable world and our generally unsustainable actions, lifestyles, and corporate and public policies. The hope was to impact national education and development planning. In this effort “re-orienting” teaching and learning was seen as the critical link—under-exploited opportunity—for facilitating behavior change that could support environmental integrity, vital economies, and just societies for present and future generations.

The strategy of the DESD is to build awareness and create forums, tools, resources, training opportunities, and collaborative communication networks for integrating and infusing sustainability principles, values, and practices into national education plans and systems. For more information on the UN DESD (2005–2014)—of which UNESCO is the lead agency—see:

[UNESCO’s UN DESD Website](#)

One of the primary goals of the UN DESD is to support implementation of the UN Millennium Development Goals (MDGs). Reviewing and exploring the level of MDG achievement in different countries, exploring the causes of success/failure, and relating the level of MDG achievement to people’s quality of life could be the basis for a stimulating G.E. course or integrated module in both mathematics/statistics and the social sciences. For details on the MDGs, see:

[UN Millennium Development Goals](#)

UNU’S RCE PROGRAM:

The United Nations University Regional Centers of Expertise in Education for Sustainable Development (RCE) Program, arguably represents the most effective effort to implement the UN DESD to date. The goal of the RCE Program is to bring together formal (public and private K–12 and higher education), informal (education/learning directed clubs, committees, partnerships, etc), and nonformal (museums, libraries, nature centers, businesses, NGOs, government agencies/offices, etc.) learning communities around the goals of education for sustainable development. The RCE Program is, perhaps, the most significant global exercise in social learning for sustainability today. The strategy is to take a transformative approach toward “reorienting” education to support and promote sustainable development through advocacy and awareness efforts, increasing access to quality education, training programs, curriculum development, collaborative projects, research, etc.

The recently retired Rector of United Nations University (in Tokyo), Hans van Ginkel, created the RCE Program to bring the DESD effort down to a scale where communities, institutions, and organizations within a region—through the efforts and persistence of real people like us—can have a positive, substantive, and lasting impact in helping to build a culture that is both committed to and models sustainability in its everyday activities, practices, and policies. Rector van

Ginkel's idea was that meaningful change only happens at the scale in which everyday people function. His vision of a “region” is defined by the notion that people can leave their home, travel to an all day meeting, and return to sleep in their bed at night. The RCE Program is administrated by UNU’s Institute for Advanced Studies in Yokohama, Japan (Dr. Glasser serves as a Resource Person for UNU—IAS’s Education for Sustainable Development Program). To date there are now over 50 RCEs internationally. For more information on UNU's RCE Program, see:

[UNU's Regional Centers of Expertise in Education for Sustainable Development Program \(RCE\)](#)

Grand Rapids is the first RCE in the U.S. It received this designation in the last days of 2006. The application for RCE status was submitted through Mayor Heartwell’s office. For more details on the history of RCE Grand Rapids, see:

[Pdf Cut Sheet on RCE Grand Rapids](#)

APPENDIX 6: President's Universitywide Sustainability Committee (10/9/08)

NAME	TITLE	E-MAIL	PHONE
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