

## II. INTRODUCTION AND HISTORY

Xavier University's physical location and academic tradition both inspire and influence our sustainability efforts. A Jesuit, Catholic University founded in 1831, we have occupied our present location in urban Cincinnati since 1919. The campus currently owns 148 acres; our buildings total approximately 1.8 million square feet (not including the buildings currently under construction). Xavier's mission is "to serve society by forming students intellectually, morally and spiritually, with rigor and compassion, towards lives of solidarity, service and success." In addition, our University catalogue notes that our "Jesuit education seeks to develop intellectual skills for both a full life in the human community and service in the kingdom of God; critical attention to the underlying philosophical and theological implications of issues; a world view that is oriented to responsible action and recognizes the intrinsic value of the natural and human values; an understanding and communication of moral and religious values through personal concern and lived witness, as well as by precept and instruction; and a sense of the whole person—body, mind and spirit." Clearly, such goals lend themselves to active engagement in the current ecological crisis. Further, the faculty wrote an Academic Vision Statement in 2001 to guide our efforts for the next decade. Part of that vision included a desire for "an open, collaborative learning environment that is responsive to its immediate community as well as external communities, that encourages genuine engagement with civic, social, cultural, and global issues and that provides opportunities for international experiences." Also, the Justice Across Campus Committee on January 26, 2003, stated in part: *"As Xavier works to become a model of the University as Citizen it needs to recognize that citizenship is not only a matter of social responsibility but also of ecological responsibility. Committing to building a more ecologically sustainable campus makes a profound statement by the university in modeling a more complete vision of citizenship."*

Our broader Jesuit heritage also deeply informs our response to the climate crisis. As educators who seek to address and help prepare students to address the challenges of the world, we must acknowledge and prepare our students for a world of both environmental and economic challenge. In 2008, the Society of Jesus celebrated the General Congregation 35. The Congregation debated different issues related with the mission, the structure, and the identity of the Society. The following are official statements from GC 35 in regards to sustainability:

### Decree 2, A Fire that Kindles other Fires

# 20. Globalization, technology, and environmental concerns have challenged our traditional boundaries and have enhanced our awareness that we bear a common responsibility for the welfare of the entire world and its development in a sustainable and living-giving way.

# 24. We turn also to the 'frontier' of the earth, increasingly degraded and plundered. Here, with passion for environmental justice, we shall meet once again the Spirit of God seeking to liberate a suffering creation, which demands of us space to live and breathe.

### Decree 3, Challenges to our Mission Today

# 31. Following the directive 30 of GC 34, Fr. Peter-Hans Kolvenbach commissioned a study and invited all "Jesuits and those who share our mission to show ever more effective ecological solidarity in our spiritual, communal, and apostolic lives." This invitation calls us to move beyond doubts and indifference to take responsibility for our home, the earth.

# 32. Care of the environment affects the quality of our relationships with God, with other human beings, and with creation itself. It touches the core of our faith in and love for God, "from whom we come and towards whom we are journeying." It might be said that St. Ignatius teaches us this care of the



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environment in the Principle and Foundation when speaking of the goodness of creation, as well as in the Contemplation ad Amorem when describing the active presence of God within creation.

# 33. The drive to access and exploit sources of energy and other natural resources is very rapidly widening the damage to earth, air, water, and our whole environment, to the point that the future of our planet is threatened. Poisoned water, polluted air, massive deforestation, deposits of atomic and toxic waste are causing death and untold suffering, particularly to the poor. Many poor communities have been displaced, and indigenous peoples have been the most affected.

The 2010 International Jesuit Higher Education Conference in Mexico City in April, 2010 is the most recent manifestation of the Jesuit educational response to our current circumstances. The conference called by Superior General Fr. Adolfo Nicolas, S.J., and the deceased Fr. Paul Locatelli, S.J., who was the Secretary for Jesuit Higher Education in Rome and the principal organizer of the meeting. Leading up to the meeting, Fr. Locatelli, S.J., noted that “Learning in a global context is the future. And as the only global network of higher education in the world, Jesuit higher education should seize this opportunity and at same time, accept its responsibility for helping to fashion a more humane, just and sustainable world for all, not only for those with access to education and resources but also those without.” One of the themes for this unprecedented meeting was sustainability. One of the four themes of discussion and presentation was “ecology and sustainability.”

Integrating sustainability into Xavier’s operations at all levels is in keeping with the Jesuit tradition and promotes the welfare of our students, our institution and our community. Increasingly, U.S. students seek universities with robust attention to the environment and ecology; our physical infrastructure will be less costly to run and more resilient the lower our carbon footprint; our education will be more interdisciplinary and problem-focused; and we can become an even more vibrant partner in the community through our engagement in sustainability with others.

### Sustainability Committee

President Michael J. Graham, S.J., signed the American College & University Presidents’ Climate Commitment in 2008, and the Xavier University Sustainability Committee was established shortly thereafter. With members selected from faculty, staff and students, the 14-member group is charged with developing and updating this evolving Campus Sustainability Plan toward carbon neutrality, as well as oversight of tangible actions stemming from this Plan.

The University Sustainability Committee initially embarked on the Greenhouse Gas Inventory, as well as the establishment of various communication tools, including the “Xavier Green” website. The sustainability website (<http://www.xavier.edu/green/>) contains information on what the University has already achieved, including links to relevant areas of the University and community that may be helpful.

The first institutional financial support was put forward in 2009 by President Graham, funding a new student-intern position, beginning with the inception of the 2009-2010 school year. The first intern greatly enhanced student participation in the work of the committee. In spring 2010, at the President’s request, another student-intern position was created so that the committee will always have two interns minimum at one time.



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Student involvement and engagement around the topic of sustainability has grown significantly with the addition of student sustainability interns to the sustainability committee. Additionally, several clubs under the umbrella of Peace & Justice programs have repositioned themselves to take on an "eco" or environmental focus. For example, the "Earthbread" club repositioned themselves as the "EARTH Coalition" to tackle a host of environmental issues.

The committee planned and hosted "Sustainability Day" on October 27, 2009, featuring guest speaker Nancy Tuchman from Loyola University of Chicago. Dr. Tuchman founded Loyola's "Center for Urban Environmental Research & Policy" (CUERP), which brings together a diverse faculty with an array of academic expertise to help students explore the relationship of human beings to the natural environment, and to develop the mental acuity and technical skills needed to formulate solutions to complex environmental problems. In addition to the Tuchman lecture, Sustainability Day also included cross-campus discussions that proved to be a highlight of the day for many. Sustainability Day created momentum within the student body for sustainability initiatives. This campus-wide conversation has greatly informed the contents of this document. The second annual Sustainability Day will be held on October 25, 2010 and feature William McDonough, world-renowned architect and designer, as guest speaker.

### Energy and Infrastructure

The most significant way in which Xavier University has demonstrated commitment to sustainability thus far has been at the nexus of its economic and environmental sustainability with regard to energy and infrastructure. Xavier made the decision many years ago to invest in central-plant systems to provide heating and cooling for the majority of the buildings on campus that resulted in higher-energy efficiency. Thermal storage minimizes the operation of equipment during the day. Automated building-management systems were installed as soon as they were economically viable to monitor all building operations and identify opportunities to reduce energy consumption. The adjustment to schedules and temperature set-points through this system significantly increases energy efficiency. Xavier continues the process of building upon the Greenhouse Gas Inventory findings with ongoing campus-wide energy evaluations. Additional energy efficiencies are realized campus-wide through the following actions:

- Low-emitting glazing added to all windows
- Roofing materials specified with improved insulation
- Light fixtures and lamps replaced with more energy-efficient units, especially compact fluorescent light bulbs that use 75% less electricity
- Motion detectors used to activate the use of lights only when needed

Physical Plant has spearheaded recycling at the University, with recycling competitions occurring among the dorms for the past 6 years. Over the past three years, Xavier University has been in the process of acquiring land and demolishing existing buildings as it grows and expands. Due to this expansion process and the subsequent demolitions and renovations, Xavier established a policy that a minimum of 75% of construction and building demolition waste must be diverted from landfills and sent for recycling and reuse processes. In recent demolition projects, Xavier recycled 45,356 tons of concrete/masonry, 206 tons of asphalt, 3,202 tons of steel/metals and 176 tons of paper/cardboard. In the same vein, Xavier building design policy stipulates that 20% of the total value of the materials in any given project incorporate pre- and post-consumer recycled content and, further, that building materials are to be produced within 500 miles of the building site.



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When LEED was released to the marketplace in 2000, Xavier was among the first to recognize the value to the sustainability goals of the institution. Since 2005, all new construction on campus has been built to LEED Silver standards. The two newest on-campus buildings are designed with reflective roofs, low-VOC emitting materials, water-flow restrictors, natural lighting, and several other conservation design practices. It is the intent of Xavier University to realize a 14 to 17.5% reduction in overall energy consumption in new buildings above what is mandated by code and standard design practice. To help realize that goal, in addition to the actions listed in the aforementioned bullet points, the following features were included in the buildings to increase energy efficiency and, thus, reduce greenhouse gases:

- High-efficiency lighting and motors
- Building management system that optimizes and controls the quality of the indoor environment based on occupancy and outdoor conditions while saving energy
- Pre-occupancy commissioning of the building support systems to help insure proper operation and functionality
- New building-site placement takes advantage of daylight harvesting that is energy efficient and enhances indoor environmental quality

### Academics and Student Life

For many years, Xavier University has offered classes throughout the curriculum that include sustainability issues. Some of these courses were organized into an interdisciplinary Environmental Studies minor in 1998. The minor is rooted in two main disciplines: Ecology and Economics. Students seeking the minor also have an elective that can be satisfied from a variety of departments such as Theology, English, and History. A 2009 campus-wide survey of faculty revealed that 81 different courses from 35 departments incorporate some discussion of sustainability. In responding to the survey, many professors said they would like to include more sustainability-related content into their courses. Two international experiences, an Ireland and Costa Rica program, both feature environmentally-focused courses. A few faculty members, mostly biology professors, engage in sustainability-related research at this time.

In support of academic pursuits, Xavier University has a long history of promoting experiential and co-curricular learning that leads students toward active and engaged citizenship, particularly in solidarity with marginalized populations. The Academic Service Learning Semesters, the Community Building Institute, the Eigel Center for Community Engaged Learning, Faith and Justice Programs, the student-run Alternative Breaks program, the Brueggeman Center's Fellows, and service learning courses have all played an important role in fulfilling this part of our mission in the past. These experiences have frequently actively worked on environmental justice or sustainability issues, such as mountaintop-removal coal mining, food and farming issues, animal rights and species preservation.

Since 2002, the Brueggeman Center for Dialogue has fostered academic reflection on sustainability through four Town Hall Meetings on environmental themes and lectures by speakers such as William McDonough, David Orr, Vandana Shiva, Ralph Nader, and others. The Brueggeman Fellows program has sent close to 60 students to 33 different countries doing research and a significant number of them have done or are doing research on environmental issues.



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In terms of the shaping of the University culture and policy concerning sustainability, students, faculty and staff have a storied history of engaging in social-justice causes, including environmental issues. Some examples include:

- As early as the 1950s, student protests targeted many issues, including the war in Vietnam, race, poverty and the environment.
- Offices like the Center for Faith & Justice Programs support student clubs, speakers, and educational sessions on food and farming issues, environmental justice, and stewardship.
- A small group of faculty and students, under the “Justice Across the Campus” Committee, spent several years educating the campus community about green building and organic and local food resulting in distinct changes in Xavier’s building practices and food offerings through campus dining.
- The Student Activities Council has sponsored “Earth Week” in April for many years. In 2009, student groups provided a number of events during Earth Week, which included the distribution of re-usable water bottles, an organic local meal and tours of a car run on vegetable oil.
- In other greening efforts, Peace and Justice Programs launched a campus community garden project in 2009 with 6 plots and 27 participants that will expand to 30 plots in 2010. A series of twice monthly workshops were held in conjunction with the garden in order to promote sustainable practices and lifestyles.

In addition, the Ethics, Religion and Society lecture series over the last two years has had Sustainability and Ecology as its theme. For the first year in 2008-09, the focus was on global climate change and featured Robert Kennedy, Jr. and David Orr. The second year of 2009-10 focused on food and agriculture and included Michael Pollan and Wendell Berry. Prior to each lecture series 12-20 faculty participated in a workshop to learn more about the upcoming topic and to incorporate some of the speakers and readings into their courses. Thus, hundreds of students over the past two years have learned more about both topics and took part in the guest lectures.

In addition, for a decade the Ethics, Religion and Society series and the Brueggeman Center since 2003 have brought numerous speakers to campus on environmental and sustainability themes, including David Orr, Vandana Shiva, William McDonough, Ralph Nader, Robert F. Kennedy, Jr., Michael Pollan and Wendell Berry. In the last few years, prior to each lecture series 12-20 faculty participated in a workshop to learn more about the upcoming topic and to incorporate some of the speakers and readings into their courses. Thus, hundreds of students over the past two years have learned more about both topics and taken part in the guest lectures.

Xavier has participated in the “Recyclemania” intercollegiate competition that has served as a benchmarking tool to promote waste reduction activities since 2007. Xavier strives to make recycling easy with recycling containers in every office and large gathering spaces. Cell phone, printer cartridge and battery recycling are also available in the Gallagher Student Center.

### Transportation

Xavier University has made some steps in recent years toward reducing the emissions from our fleet vehicles and to promote alternative means of traveling to campus. Mail Services purchased an electric



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vehicle to replace a gasoline-powered delivery van. Physical Plant purchased two electric vehicles with plans to replace the remainder of the gasoline-powered fleet with higher fuel standard vehicles as the fleet ages. In 2009, the number of bike racks available around campus more than doubled.

### Purchasing and Services

At the present time, the campus purchasing process is nominally centralized, however, a number of University departments and individuals make independent purchasing decisions. Toilet paper, copier paper, computer monitors and photocopiers all have recycled content. Compact fluorescent light bulbs are used in many locations on campus. Since 2006, custodial services have used environmentally-safer cleaning chemicals, and food vendors, retail stores and dining services promote some sustainable products (fair-trade, organic, etc.).

### Community Engagement and Communication

Increasingly over the past decade, Xavier University has provided both leadership and space for sustainability-related dialogue and public education. With entities in place to facilitate these opportunities, such as the Community Building Institute, Brueggeman Center for Dialogue, and the Ethics, Religion, and Society program, Xavier possesses multiple venues for working with and informing our immediate communities, our city and our region. Xavier also has a history of hosting community and regional groups who are actively and creatively thinking about issues of sustainability and systemic change, including the Earth Spirit-Rising Conference, U.S. Conference of Catholic Bishops' Climate Change Commitment gathering, and U.S. Green Building Council Awards. Xavier must continue to build upon this path as both activator and host, with a spirit of cooperation, recognizing both the strengths and needs of our surrounding communities.

Communication efforts from Xavier's campus are coordinated by a few offices within the University, including Public Relations, Information Resources, and Marketing. Input for online and print publications is sought from all sectors of the University. Individual offices manage a certain amount of their own outreach through mailings, websites and social media decentralized from these main coordinating offices. Xavier possesses a strong network of media contacts, both local and regional, through which events and accomplishments can be communicated. Community and campus partners have specialized contacts in other areas which can be incorporated into this network.

