

IUPUI SUSTAINABILITY INITIATIVE REPORT

2005-2010



WWW.SUSTAINABLE.IUPUI.EDU

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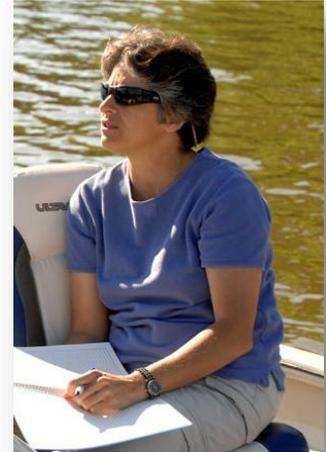
LETTER FROM SUSTAINABILITY INITIATIVE CO-CHAIRS

Sustainability has become an important aspect of IUPUI campus culture. More than just an environmental issue, it has become an important and integrated aspect of efficiency and good business practice. As an institute of higher learning it is critical that IUPUI integrate sustainable practices into all aspects of the campus and student life.

Over the past five years the IUPUI Campus Sustainability Initiative has focused on recycling, developing and integrating sustainable practices, and developing a sustainable student culture. This report denotes the first time that we have presented data documenting sustainable initiatives on campus. As we move toward greater awareness and application of sustainable practices it is important to document our efforts, goals, and achievements. This current report and future annual reports will allow us to plan ahead and move the university towards a culture of sustainability.

Through the Campus Sustainability Initiative, IUPUI has made important strides in developing sustainable programs and exploring green practices. The past five years have seen the expansion of the recycling program, the establishment of the Greening IUPUI Grant Fund and the awarding of over \$73,000 in grants, a two year university-wide Common Theme focused on Sustainability, the creation of an Urban Garden and much more. These changes are significant steps towards improving sustainability here at IUPUI. We plan to further develop the sustainable culture here through our commitment to supporting adoption of best practices and integrating sustainability into all aspects of campus life.

Lenore Tedesco & Richard Strong
Sustainability Initiative Steering Committee Co-Chairs



Lenore P. Tedesco, Ph.D.
Professor, Dept. of Earth Sciences
Director, Center for Earth and
Environmental Science
Indiana University – Purdue University
Indianapolis



Rich Strong, Director
IUPUI Environmental Health
and Safety

HISTORY OF THE SUSTAINABILITY INITIATIVE

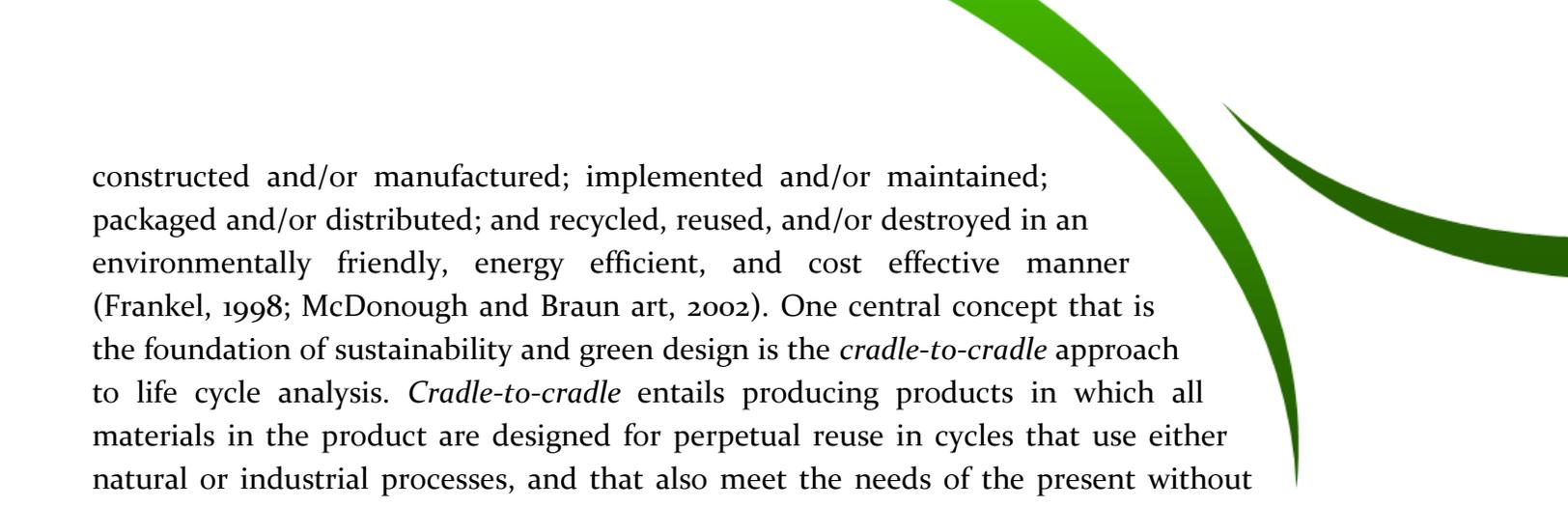
In 2005 an interdisciplinary campus coalition, the Campus Sustainability Initiative, was initiated to spearhead an environmental sustainability program at IUPUI through the integration of faculty, staff, and students university-wide. It was realized that IUPUI administrators, schools and departments were already involved in the research, education, and implementation of sustainability, including renewable energy and fuel cells, environmental research, urban planning, greenways, and green building construction. The Campus Sustainability Initiative would unite these efforts into a central movement to foster greater awareness and application of sustainable practices into all areas of university life. The steering committee of the Campus Sustainability Initiative would seek campus-wide adoption of sustainability as a guiding principle and would begin the creation of a statement of environmental principles for IUPUI campus life and operations. Since 2005 the initiative has slowly but steadily flourished on campus resulting in increased awareness of recycling, energy usage, urban gardening, and much more.

CAMPUS SUSTAINABILITY PHILOSOPHY¹

According to the United States Environmental Protection Agency, “Sustainability” is the ability to achieve economic prosperity while protecting the natural systems of the planet, and provide a higher quality of life for its people. In the context of environmental stewardship, sustainability and green design refer to the design of buildings, products, and processes that are

The Campus Sustainability Initiative is an interdisciplinary coalition for sustainability programs at IUPUI integrating faculty, staff and student participants. IUPUI administrators, schools and departments are involved in the research, education, and implementation of sustainability, including renewable energy and fuel cells, environmental research, urban planning, greenways, and green building construction. The Campus Sustainability Initiative is uniting these efforts to foster greater awareness and applications of sustainable practices into all areas of university life.

¹ This section is taken from the IUPUI Campus Sustainability Initiative Report published December 19, 2005. The report can be found online at <http://www.sustainable.iupui.edu/> under the Resources section.

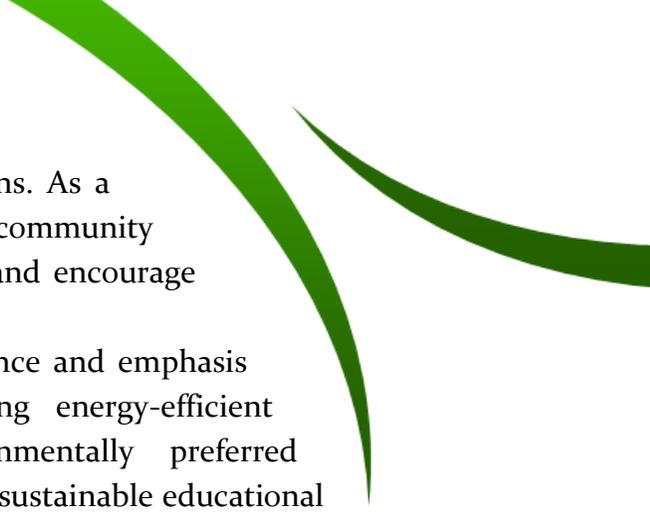


constructed and/or manufactured; implemented and/or maintained; packaged and/or distributed; and recycled, reused, and/or destroyed in an environmentally friendly, energy efficient, and cost effective manner (Frankel, 1998; McDonough and Braun art, 2002). One central concept that is the foundation of sustainability and green design is the *cradle-to-cradle* approach to life cycle analysis. *Cradle-to-cradle* entails producing products in which all materials in the product are designed for perpetual reuse in cycles that use either natural or industrial processes, and that also meet the needs of the present without compromising the ability of future generations to meet their own needs (McDonough and Braungart, 2002).

This macro-level view provides a mandate for how organizations should be designed, structured, and maintained in a variety of areas, not just those related to environmental stewardship. Businesses, consumers, and governments all over the world have begun to realize the importance of green material, renewable energy, environmentally friendly manufacturing and products for the sake of human health and the environment. Utilizing environmentally sustainable practices and products will become ever more important in urban centers throughout the world. The United Nations states that with just under half of the world's population (47%) living in cities and projected to increase by 2% per year from 2000-2015, we are now considered an urbanized global society. As the population continues to increase, consumption patterns and waste streams will directly impact the surrounding environment. How well communities manage natural resources (land, air, water) within urban environments will directly relate to quality of life, health, and the economy for a vast percentage of the world's population.

With shrinking world resources in energy and raw materials, with more and more importance placed on sustainability within organizations, with growing evidence of environmental hazards as the cause of human illness and infirmity, and with the evermore stringent government requirements, more and more businesses will have to go green in order to survive. The essential challenge we face is how to reconcile economic development with a sustainable environment. The question is not if we can do this; but how we will do this. This trend creates a new demand for an educated workforce that is familiar with issues and solutions in sustainability. In fact, higher education in particular has an important role to play, as it trains the majority of business leaders and an increasing percentage of the workforce, conducts much of the business and economic research, and generates a large amount of the intellectual contributions to business management. Currently, most companies have to rely on on-the-job-training to bring employees up-to-date on sustainability issues. In the future, businesses and industries will look to the universities to provide new employees that are well versed in the subject.

A scientifically literate society is a critical goal in order to achieve sustainable environmental practices and, as a result, sustainable communities. The academic community is ideally positioned to raise understanding and awareness of the role of science and the environment in everyday lives. IUPUI as an urban university is uniquely positioned to be a model for urban environmental sustainability, both because we have the responsibility to take a leadership role and because the university itself needs to function as a competitive business. Sustainability will ultimately depend upon a citizenry that can



understand environmental issues and make informed decisions. As a university institution within an urban environment, the IUPUI community has a unique and important responsibility to educate about and encourage sustainability and environmental stewardship.

The “Green Schools” movement is growing in importance and emphasis nationwide. More and more universities are incorporating energy-efficient buildings, green schoolyards, waste reduction, environmentally preferred purchasing, social investing, and other innovations into a fully sustainable educational system that includes physical plant, curriculum, investments, community outreach, and research.

Examples of ongoing university sustainable programs are highlighted below. Many of the programs are interdisciplinary, with partnerships spanning from across campus and community. A listing of committee members can also be found. We are presenting the projects and committee members as an initial compilation. The listings are not inclusive and are meant as starting points to bring awareness and foster expansion of current activities. We welcome additional members and projects.

SUSTAINABILITY INITIATIVE SUBCOMMITTEES

ENERGY AND THE BUILT ENVIRONMENT

CO-CHAIRS JAN COWAN, DAVID GOODMAN AND
JOHN KAMMAN

FORMATION

May of 2009

GUIDING PRINCIPLE STATEMENT

We will seek to design, build, restore and manage our facilities and grounds through the use of sustainable materials and practices. The United States Green Building Council's Leadership in Energy and Environmental Design (LEED) rating system or an equivalent rating system will be considered and implemented to the extent possible. Total life cycle costs, energy use, and impact on the environment are other important factors that will influence selection of materials and practices. We will also conserve energy and improve the energy efficiency of our buildings, vehicles, and equipment as well as the goods and services we use.



Environmental Service Learning in Indianapolis Parks,
Photo: IUPUI CEES

ACTIONS

The Built Environment Subcommittee's goals are to increase campus awareness of sustainability concerns in respect to the built environment. Their focus is to become a vehicle for passing on new policies regarding green procedures and materials from the building community at IUPUI on to the Sustainability Steering Committee. One of the subcommittee's current projects is the creation of an Eco Ready Shelter, made from an intermodal shipping container, which will be located on campus. This project is representative of their interest in focusing upon tangible projects that engage students at a technical level. The Energy and Utilities Subcommittee has worked towards quantifying energy usage

through the identification of major users and ways of reduction as well as determining parameters of campus, energy billing, and gaps in existing information. Review of the Lights Out Indy initiative of the Amos W. Butler Audubon Society, a program to reduce the amount of lighting in downtown Indianapolis during critical migration months to reduce bird mortality, has been completed by the subcommittee. In the spring of 2010 these two subcommittees were joined together due to the similar nature of their goals.

COMMITTEE MEMBERS

Jan Cowan	Ken McKnight	Joe Peters
Pat Fox	Darrell Nickolson	Jeff Plawecki
David Goodman	Derek Ogle	Rich Strong
Evan Green	Niraj Patel	Jim Walsh

LAND, AIR AND WATER

CO-CHAIRS LENORE TEDESCO AND KEVIN MOUSER

FORMATION

August of 2009

GUIDING PRINCIPLE STATEMENT

We value and conserve natural resources and will seek to preserve and make sustainable use of our air, water, and land. We will protect and conserve non-renewable natural resources through efficient use, careful planning, collaborative land management programs and regulatory compliance. We will minimize use of substances that may cause environmental damage to the air, water, land or its inhabitants and seek alternative substances that are more environmentally friendly. We will safeguard habitats affected by our facilities and operations and promote biological diversity, especially on and near the public lands we manage. We will conserve and increase green space through comprehensive planning.

ACTIONS

The Land, Air and Water Subcommittee has worked on the development of policies that will protect and conserve our environment. Over the course of the past year the committee has created and revised several policies for the IUPUI campus. Those proposed policies are Waste Minimization and Pollution Prevention, Mercury Reduction/ Elimination, and Idling of Vehicles and Equipment on Campus. The



Campus Storm Drain Marking,
Photo: IUPUI CEES

subcommittee has also had interns complete a Land/Air/Water Metrics and Projects presentation and a Carbon Footprint Intern Project.

COMMITTEE MEMBERS

Kim Burrows	Kara Salazar	Steve Stringer
Pat Clark	Dwight Schuster	Lenore Tedesco
Kevin Mouser	Amanda Stinnett	
Ingrid Ritchie	Lee Stone	

PUBLIC HEALTH

CO-CHAIRS DR. STEPHEN JAY AND COLLEEN MCCORMICK

FORMATION

July of 2009

GUIDING PRINCIPLE STATEMENT

We will work to raise awareness about the ways the environment impacts individual and community health. We will monitor our policies and practices to assess environmental and occupational hazards that can adversely affect public health. When potential risks are identified, we will promote the identification and implementation of effective solutions.

ACTIONS

The Public Health Subcommittee has focused on projects that would improve the health and environment of the IUPUI campus. The subcommittee has accomplished the creation of a proposed Pest Management Policy based upon integrated pest management (IPM). Secondly, the subcommittee worked on the development of an IUPUI urban garden on campus. The garden, located on the south side of the LD building, will be planted in spring 2011.

COMMITTEE MEMBERS

Nancy Barton	Dr. Steve Jay	Rachel Rehlander
Rachel Bennett	Colleen McCormick	Mike Schrader
Lee Bernard	Dr. Dave McSwane	Jason Spratt
Dr. Gabe Fillippelli	Michelle Murray	Maggie Stimming
Emily Hardwick	Dr. Richard Nass	Rich Strong



Campus Tox Away Day,
Photo: IUPUI CEES

TRANSPORTATION CHAIR CAROL PFERRER

FORMATION
May of 2009

GUIDING PRINCIPLE STATEMENT

We will minimize transportation demands to and from campus and continue to incorporate alternative fuels in the campus fleet. We will work with the Central Indiana Clean Cities Alliance, Central Indiana Commuter Services, and IndyGo to encourage increased use of carpooling and public transportation by IUPUI students and employees and we will work with Central Indiana Bicycling Association, Indy Greenways and similar programs to encourage bicycling as a commuter option.



Beautify IUPUI,
Photo: Campus Facility Services

ACTIONS

The Transportation Subcommittee has focused on issues ranging from alternative fuels, integrating city public transportation with the campus needs, and alternative forms of transportation on campus. The committee suggested an ownership change for the partnership between CICS and IUPUI so that it became integrated into the Transportation Demand Management program at Parking and Transportation Services. The committee helped guide the new carpool program that was initiated in the summer of 2010. The campus has seen an immediate impact through the carpool program with the new carpool permit becoming an intricate part of continued sustainability on the IUPUI campus with over 200 participants to date. The campus's partnership with IndyGo and their willingness to help advertise the S-Pass program has helped the program reach a new level of utilization by obtaining 35,000 rides in one month.

COMMITTEE MEMBERS

Samantha Cross
Annette Darrow
Wayne Husted
Jay Joyce

Chris Mahalek
Carol Pferrer
Maggie Stimming
Rich Strong

Becky Thacker
Tally Thrasher
Robert True

RECYCLING AND WASTE REDUCTION

CO-CHAIRS RICHARD STRONG AND PAT FOX

FORMATION

1991

GUIDING PRINCIPLE STATEMENT

We will work to elevate the environmental consciousness of the IUPUI community. The subcommittee advocates sustainability programs that advance reduction, reuse, and recycling of waste materials, as well as promotes environmentally sound purchasing practices.

ACTIONS

The Recycling and Waste Reduction Subcommittee has held monthly or quarterly meetings since 1991, focusing on the promotion of recycling on campus. The committee has instituted specific recycling personnel from Campus Facility Services and increased the variety of material recycled. Working with Herron School of Art students to develop a design for recycling stations, the committee aligned itself with a local company to then fabricate the stations which can be found on campus. The committee has also received two grants from the Indiana Department of Environmental Management to improve the recycling program: 1992 - \$20,000; 2005 - \$50,000. In 2006 the recycling committee aligned itself with the Steering Committee. The committee has since created bookmarks and posters through design work of Heron students. The committee has also revised their Mission Statement and developed a Recycling webpage under the Campus Facility Services website.



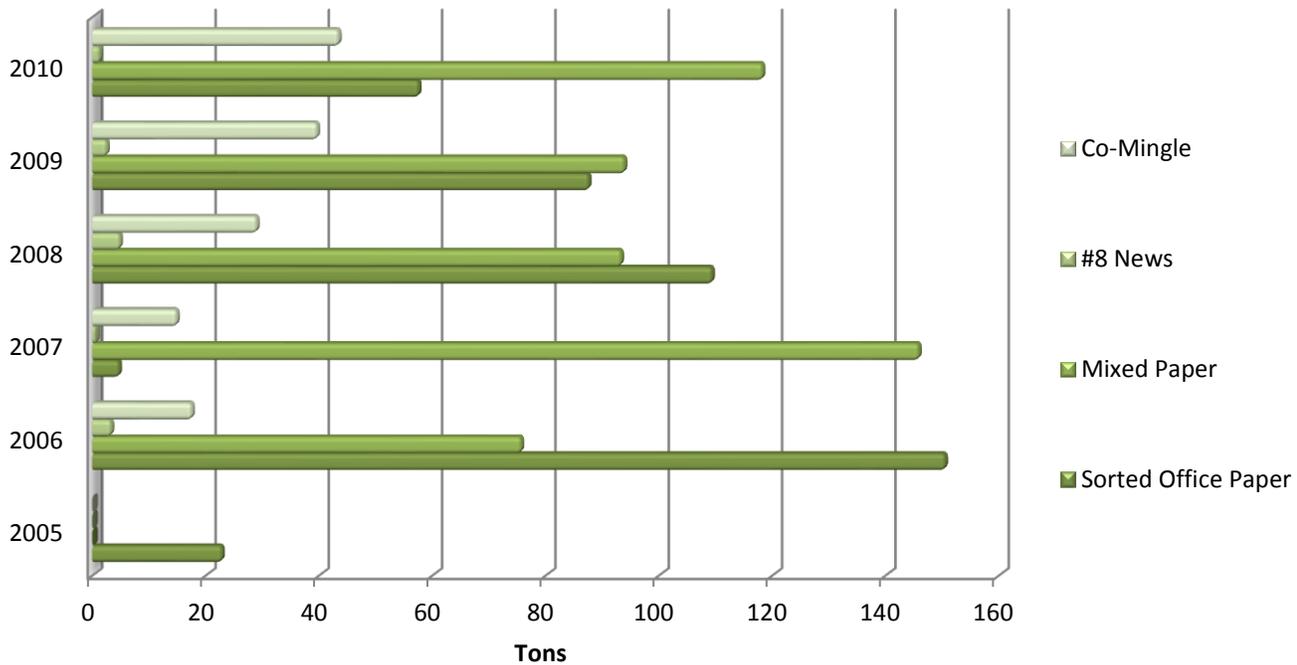
IUPUI Recycling Center, Photo:
Campus Facility Services



Recycling and Trash Removal at Lilly ARBOR Project Site,
Photo: IUPUI CEES

The committee has participated in several events:
Tox-Away Day: 2005, 2006, 2007, 2008, 2009
(established by the committee)
Greening IUPUI: 2008, 2009, 2010
E-Waste Day: 2009

2005-2010 IUPUI Recycling



RECYCLING ²	2005	2006	2007	2008	2009	2010
Sorted Office Paper	22.8 ³	150.44	4.66	109.30	87.54	57.54
Rebated	\$493.55	\$3843.10	\$173.65	\$9306.00	\$1866.50	\$4074.83
Mixed Paper	0	75.64	145.81	93.26	93.85	118.23
Rebated	\$0.00	\$0.00	\$509.50	394.85	\$0.00	\$0.00
#8 News	0	3.27	.59	4.83	2.51	1.24
Rebated	\$0.00	\$61.90	\$33.65	\$117.80	\$21.70	\$23.20
Co-Mingle ⁴	0	17.52	14.85	28.95	39.63	43.41
Rebated	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Total Amount Rebated	\$493.55	\$3905.00	\$716.80	\$9818.65	\$1888.20	\$4098.03

² It is important to note that the rebated amount changes according to market value and the quality of the paper received. For further information please visit www.cfs.iupui.edu/recycle/.

³ All recycling types (i.e. Sorted Office Paper, Mixed Paper, etc.) are measured in tons. These statistics are reported to IUPUI from Ray's Recycling.

⁴ Co-mingle refers to cans and plastics recycled.

COMMITTEE MEMBERS

Rachele Lynn Beach
Landon Johnathan Brothers
Claudette S. Canzian
Courtney H. Cowley
Kim Croom
Calvin Davidson
Patricia S. Fox
Susan Watt Grade
Matthew Groshek
Nicole Marie Helsel
Donna Bates Kent
Colleen J. McCormick

Robert E. Merrill Jr.
Kelly Miholic
Joshua Brian Miller
Michele Parrish
Adam Gregory Parsons
Joe Peters
Kara Ann Salazar
Michael C. Schrader
Joshua David Skillman
Amanda Young Stinnett
Richard A. Strong
Elizabeth Megan Thomas

Daniel Lewis Waggoner
James Robert Walsh
Phillip T. Warren
Jane A. Whisman-Lane
Michelle A. Whited
Richard C. Williams

GREENING IUPUI GRANT

2009 FUND RECIPIENTS

- IUPUI's Environmental Impact by Numbers Project (included funding for 6 student internships): \$19000
- Common Green Contest: \$3800
- Sustainable Bags for Student Orientation: \$2000

2010 FUND RECIPIENTS

- Bicycle Parking and Safety Education: \$9600
- Campus Membership in the Association for the Advancement of Sustainability in Higher Education (AASHE): \$1600
- Greening IUPUI Through Reusable Beverage Containers: \$4600
- IUPUI Housing and Residence Life Recycling Project: \$6200
- IUPUI Lawn Irrigation System Upgrade: \$4610
- IUPUI Rain Garden Storm Water Monitoring: \$9635.69
- Special Event Recycling Containers: \$560
- Student Sustainability Internships (3 semesters): \$9000

IUPUI is providing up to \$50,000 annually to fund student, faculty, and staff led initiatives which will green IUPUI by advancing the Sustainability Principles.

CAMPUS INVOLVEMENT

2010 IUPUI Sustainability and Green Fair

The IUPUI Office of Student Involvement sponsored the second annual Green and Sustainability Fair during Weeks of Welcome in September. The 2010 Fair featured education about sustainable services, local initiatives and advocacy, campus green efforts, volunteer opportunities, and green businesses. Twenty six different organizations from across the city of Indianapolis were represented at the Fair. A total of 667 members of the IUPUI community attended including 538 undergraduate students, 41 graduate students, 51 employees, and 37 community members.

PHOTOS: IUPUI Office of Student Involvement





2010 No Impact Week

Inspired by IUPUI's 2010 – 2011 Common Theme, No Impact Week (NIW) offered both those interested in exploring a “green” lifestyle and those already committed to lessening their carbon footprint to engage in a multitude of activities on campus and in the community. Ranging from a free swap market, to campus garden planting, to a campus bike ride, 13 unique events brought the IUPUI community together to explore different avenues of living green. Throughout the week, over 300 students, staff, faculty, and community members engaged in the activities focused on the follow topics: food, water, energy, transportation, trash and consumption. Common Theme activities from 2009-2011 that involve sustainability will be highlighted in a separate Common Theme report.

PHOTOS: IUPUI Office of Student Involvement





2010 IUPUI Urban Garden

The IUPUI Urban Garden was built October 6, 2010 and the Spring of 2011 will mark the first growing season. The garden's first

location is the south flank of the Science Building and consists of 18 raised beds. The objective is to promote and teach the importance of sustainable and local agriculture to reduce IUPUI's impact on the environment. This successful organic garden will attract the campus and surrounding communities to visit and learn more about how they can grow their own food using "green" techniques such as composting and organic pest control as well as providing fresh organic produce and herbs to food pantries through the Peace Garden network. Students, staff, and faculty are enthusiastically involved in this project. The IUPUI Urban Garden is a project that provides opportunities for student involvement as a civic engagement learning experience. The undergraduate service learning assistant designated as the urban garden manager and the student group, DIGS – Developing IUPUI Gardens Sustainably, are organizing work days and a faculty/staff advisory committee is planning for the garden's future. Faculty members are developing curriculum for use in university courses and K-12 outreach programs while Herron Art and Design students are creating informational signage to increase awareness of the garden and sustainable agricultural methods. The site is an aesthetically pleasing location on campus for the community to enjoy while learning about the importance of sustainable and local agriculture.

PHOTOS: Developing IUPUI Gardens Sustainably (DIGS)



EDUCATION & PUBLIC OUTREACH ACTIVITIES

Environmental Service Learning

The Environmental Service Learning Program coordinated by the Center for Earth and Environmental Science and Department of Earth Sciences is focused around raising awareness of ecological health issues as they relate to water quality. Service learning projects work towards improving Indianapolis-area water quality and combating nonpoint source pollution through restoring wetland and floodplain ecosystems and with public education programs. Working on these projects provides the students with an opportunity to directly experience many of the topics discussed in their courses as well as to observe how communities can work together to solve environmental issues. The program conducts 8-10 work days with the ability for up to 300 students to participate each semester. A typical semester's program engages 15 sections with 10 instructors from four schools, university-wide. Project sites and community partners include long-term and continuing relationships with Indy Parks and Recreation, City of Indianapolis Department of Public Works, the Central Indiana Land Trust Incorporated (CILTI), Eli Lilly and Company volunteers, and the Department of Natural Resources, among others. The program conducts at least one project on campus annually to address environmental sustainability issues.



Environmental Service Learning at
Ellenberger Park,
Photo: IUPUI CEES

Discovering the Science of the Environment Program

Discovering the Science of the Environment (DSE) is an inquiry-based and interactive science education program for central Indiana fourth through ninth grade students and education professionals developed by the Center for Earth and Environmental Science. Based in water resource and ecological restoration research, this program effectively bridges applied environmental research and technology to school education and outreach. DSE consists of experiential field programs at school ground natural areas with a mobile resource trailer and a week-long summer institute for teachers. The DSE program is providing quality science-based professional development opportunities for educators and enhancing student skills and proficiencies in STEM disciplines and environmental sustainability issues. On an annual basis, the program engages 3,000 students in 15 elementary and middle schools in the nine county central Indiana region.



Craig Middle School DSE Program,
Photo: IUPUI CEES

THE COLLEGE SUSTAINABILITY REPORT CARD⁵

REPORT CARD 2009: **D+**

Administration: C

Indiana University–Purdue University Indianapolis (IUPUI) adopted a set of sustainability principles in 2008. There is a campus sustainability initiative with staff, faculty, and student representation. Subcommittees address the built environment, energy and utility management, public health, and transportation.

Climate Change & Energy: D

IUPUI is a partner in the Central Indiana Clean Air Partnership. The campus has made efficiency upgrades, including variable frequency drive fans, updated laboratory fume hoods, water meters, occupancy sensors, and lighting retrofits in several buildings.

Food & Recycling: D

Dining services has eliminated Styrofoam and serves some sustainably produced foods. IUPUI recycles a traditional array of products, as well as printer cartridges, landscaping waste, cell phones, Freon, lead, and mercury. On-campus participation doubled during the second year of an annual electronic waste recycling event.

Green Building: D

The university's architect has committed to LEED Silver certification for all new construction. Two student lounges have been retrofitted using green materials by interior design students, and a green roof is under consideration.

Student Involvement: B

Student environmental internships and employment are offered through several departments, and there are six student groups on campus that address a variety of sustainability issues.

⁵All information concerning IUPUI's Report Card can be found online at www.greenreportcard.org. The information that is found within the report card is submitted by IUPUI's Sustainability Initiative Steering Committee.

Transportation: C

IUPUI students ride public transit for free, and campus shuttles also provide free transportation. In cooperation with the local public transit authority, IUPUI offers incentives to employees who commute by carpool, public transit, walking, or biking.

Endowment Transparency: F

The university has no known policy of disclosure of endowment holdings or shareholder voting records.

Investment Priorities: C

The university aims to optimize investment return and has not made any public statements about investigating or investing in renewable energy funds or community development loan funds.

Shareholder Engagement: F

The university has not made any public statements about active ownership or a proxy voting policy.

REPORT CARD 2010: C-

Administration: C

The university's sustainability principles address sustainable transit, energy efficiency, and green purchasing. The Campus Sustainability Steering Committee is working to develop action plans and projects to support those principles. The Greening IUPUI Grant Fund provides financial support for campus projects.

Climate Change & Energy: D

The university has retro-commissioned its HVAC systems, and signage serves to remind campus community members to close fume hoods and avoid automatic doors.

Food & Recycling: C

Dining services purchases fruit and vegetables from six local farms and milk from a local dairy. Some cage-free eggs, hormone-free meat, and fair trade coffee are served. The university has an electronics recycling program and holds a donation drive at the end of the semester.

Green Building: D

The university has installed motion sensors, ambient light sensors, and timer faucets. The university has no formal green building policy.

Student Involvement: D

Sustainability information is distributed during orientation. The university currently employs one sustainability intern and will add five more positions in fall 2009.

Transportation: C

Students ride public transit for free, and the university runs free shuttles to several nearby locations. The campus fleet includes hybrid and electric vehicles, as well as vehicles that run on biodiesel.

Endowment Transparency: C

A list of all holdings and a list of votes cast on proxy solutions on a company-specific level is made available to trustees, senior administrators, and other select members of the school community. The Indiana University Foundation makes a list of external managers available to the public online.

Investment Priorities: A

The foundation aims to optimize investment return and is currently invested in renewable energy funds.

Shareholder Engagement: D

The foundation provides its investment managers with general guidelines that determine its proxy votes.

REPORT CARD 2011: C+

Administration: C

IUPUI has demonstrated a commitment to the environment through a formal sustainability policy and incorporation of environmental themes into its guiding principles. A sustainability committee has worked on a number of initiatives, including increasing the number of recycling bins on campus and funding a number of water efficiency projects.

Climate Change & Energy: C

IUPUI has reduced per-square-foot building energy consumption by 18 percent since 2005. Temperature setbacks, energy management systems, electric and chilled water metering, and lighting upgrades have been implemented, and economizers, variable speed drives, and steam line insulation have been installed for energy efficiency. The university also runs an awareness campaign to encourage conservation.

Food & Recycling: C

Dining services at IUPUI purchases a variety of local foods, including fruit, vegetables, and dairy. Half of all eggs and meat served on campus are hormone and antibiotic free, and fair trade coffee is available in some on-campus locations. In order to reduce waste, used cooking oil is recycled for biodiesel production. The university has an electronics recycling program for waste generated by the institution, and more than 80 percent of landscaping waste is composted or mulched.



Green Building: C

The university has reduced per capita water use by 15 percent since 2005. Water conservation measures have included building water metering in all campus buildings, as well as the installation of some low-flow faucets and showerheads and weather-informed irrigation.

Student Involvement: B

Environmental student groups at IUPUI have worked on a variety of initiatives, including sponsoring awareness campaigns on local food, promoting public transportation, and hosting speakers, film screenings, and community forums to discuss environmental issues and progress. The university employs five student sustainability interns, and environmental themes are incorporated into orientation.

Transportation: B

Local public transportation is completely subsidized by the school for students. IUPUI offers incentives for carpooling to the faculty and staff, as well as free shuttle service to on-campus destinations. About a third of vehicles in the campus fleet run on 100 percent electricity.

Endowment Transparency: C

The Indiana University Foundation makes a list of all holdings available online to trustees, and a list of asset allocation and external managers is available online to the public. A list of votes cast on proxy resolutions on a company-specific level is available at the investment office to trustees, senior administrators, and other select members of the school community.

Investment Priorities: A

The foundation aims to optimize investment returns, and the endowment is currently invested in renewable energy funds.

Shareholder Engagement: D

The foundation provides its investment managers with general guidelines that determine its proxy votes.

ACADEMIC PROGRAMS

DEGREE PROGRAMS

Undergraduate

Bachelor of Science in Engineering
Bachelor of Science in Environmental Science
Bachelor of Science in Environmental Health Science
Bachelor of Arts in Geography
Bachelor of Arts in Geology
Bachelor of Science in Energy Engineering⁶
Bachelor of Science in Geology

Graduate

Masters of Public Health, Environmental Health Concentration
Masters of Science in Geographic Information Science
Masters of Science in Geology

COURSES⁷

Purdue School of Engineering and Technology

CEMT 43000 Soils and Foundations
EEN 2XX Introduction to Energy Systems and Sustainability Metrics
EEN 3XX Electric Power Networks and Interfaces
EEN 3XX Energy Storage Devices and Systems

⁶ This is a new degree offered by the Purdue School of Engineering and Technology. The courses related to this degree have the prefix EEN and can be found in the list below; the course numbers are not set as of yet.

⁷ Course availability is subject to change. The following courses were found using current school/department listings as well as the current course catalog.



EEN 3XX Hybrid and Electric Transportation
EEN 3XX Renewable Energy Systems and Design
EEN 3XX Thermal and Hydro Generation
EEN 3XX Wind and Solar Generation
EEN 4XX Clean Power Generation
EEN 4XX Fuel Cell and Battery Engineering
EEN 4XX Nuclear Power Systems
INTR 29800 Sustainable Design in Engineering
INTR 32500 Environmental Lighting Design
INTR 49500 Sustainable Design
ME542 Introduction to Renewable Energy
ME597 Topics: Fuel Cell Technology and Engineering
MET230 Fluid Power
MET 35000 Applied Fluid Mechanics
Org Leadership and Supervision OLS42300 Go Green
TECH 581 Greening Organizations

IU School of Law

D/N__ Climate Law and Policy
DN611 Environmental and Toxic Tort Law
DN665 Law of Hazardous Waste Regulation
DN697 Biotechnology and Law
DN717 Natural Resources Law
DN740 Land Use
DN882 Water Law
DN891 Environmental Law

IU School of Liberal Arts

A410 American Environmental History
G107 Physical Systems of the Environment
G113 The Ozone Hole
G114 The Greenhouse Effect and Global Warming
G123 Soil Survey
G303 Weather and Climate
G305 Environmental Change: Nature and Impact



G310 Human Impact on Environment
G315 Environmental Conservation
G390 Topics: Environmental Focus
G475 Climate Change
G536 Advanced Remote Sensing
G538 Intro. to Geographic Information Systems
G539 Advanced Remote Sensing
G639 Seminar in Geographic Information Science
G704 Soils Geography
H511 Special Topics In U.S. History
R300 Nature, Religion and American Culture
R386 Ethics of Consumption
Y200 Contemporary Political Topics
Y213 Introduction to Public Policy
Y313 Environmental Policy

IU School of Medicine

A316 Environmental Health Science
A380 Environmental Health Internship
A459 Environmental Science and Health Data Analysis
A609 Air Pollution and Health
A614 Water Quality Management
A620 Environmental Health Policy Analysis
A621 Solid and Hazardous Waste
A615 Sustainability
A617 Environmental Epidemiology
A623 Environmental Management Systems: ISO Based
H519/P519 Environmental Science in Public Health
P650 Readings In Public Health
P703 Environmental Health Science Final Concentration Project

IU School of Public and Environmental Affairs

E100 Environmental Topics
E162 Environment and People
E262 Environmental Problems and Solutions
E272 Introduction to Environmental Sciences



E311 Introduction to Risk Assessment and Risk Communication
E316 Insects and the Environment
E324 Controversies in Environmental Health
E325 Computing for Environmental Scientists
E326 Mathematical Methods in Environmental Science
E332 Introduction to Applied Ecology
E340 Environmental Economics and Finance
E355 Introduction to Limnology
E360 Introduction to Water Resources
E363 Environmental Management
E375 Techniques of Environmental Science
E400 Topics in Environmental Studies
E410 Introduction to Environmental Toxicology
E411 Introduction to Groundwater Hydrology
E412 Risk Communications
E418 Vector-Based Geographic Information Systems
E419 Applied Remote Sensing of the Environment
E422 Urban Forest Management
E423 Environmental Health Science Technology: Managing Water and Wastes
E426 Applied Mathematics for Environmental Science
E431 Water Supply and Wastewater Treatment
E440 Wetlands: Biology and Regulation
E442 Habitat Analysis-Terrestrial
E443 Habitat Analysis-Aquatic
E451 Air Pollution and Control
E452 Solid and Hazardous Waste Management
E455 Limnology
E456 Lake and Watershed Management
E457 Introduction to Conservation Biology
E459 Field Techniques in Ecology
E460 Fisheries and Wildlife Management
E461 Fisheries and Wildlife Management Laboratory
E464 Organic Pollutants: Environmental Chemistry and Fate
E465 Environmental Management in the Tropics
E466 International and Comparative Environmental Policy
E470 Elements of Fluid Mechanics
E476 Environmental Law and Regulation
E490 Directed Field Research in Environmental Science
E491 Honors Research in Environmental Science



E 510 Environmental Regulations and Compliance
H 316 Environmental Health Science
V 380 Internship Public and Environmental Affairs
V 390 Readings in Public and Environmental Affairs
V 510 Environmental Regulations and Compliance
V541 Benefit-Cost Analysis of Public and Environmental Affairs Technology

Purdue School of Science

G107 Environmental Geology
G115 Oceanography
G117 Environmental Geology Laboratory
G130 Short Course In Earth Science
G135 Indiana Geology
G136 Indiana Geology Field Experience
G406 Introduction to Geochemistry
G430 Principles of Hydrology
G431 Wetland Ecosystems
G451 Principles of Hydrogeology
G486 Soil Biogeochemistry
G550 Surface Water Hydrology
G585 Environmental Geochemistry
G690 Advanced Geology Seminar
G700 Geologic Problems
G199 Service Learning In Geology
PHYS 48000 Solar Energy Usage
K341 Principles of Ecology and Evolution

IU School of Social Work

Labor Studies L390 Topics In Labor Studies

STUDY ABROAD

Go Green (Green Organizations: Global Responsibility for Environmental and Economic Necessity)

INTERN PROJECTS

2009-2010

ANALYSIS OF ENERGY USAGE AT IUPUI

Intern: Tolonda Larry

Purpose: Evaluation of Energy Usage

Evaluation of IUPUI energy usage was conducted through the implications behind chilled water, electricity, fuel/oil, natural gas, and steam usage.

GREENHOUSE GAS EMISSIONS AT IUPUI: A PROPOSED INVENTORY PROTOCOL

Intern: Angela Robertson

Purpose: Develop Greenhouse Gas (GHG) Emissions Protocol

The development and presentation of suggested Greenhouse Gas (GHG) Emissions protocol and its implications for the campus.

A SUSTAINABLE FOOD MODEL

Intern: Katie Klco

Purpose: Establish a Sustainable Food Model

Evaluation of the advantages and benefits of food sustainability and the establishment of a sustainable food model for IUPUI.

2009 SUMMER

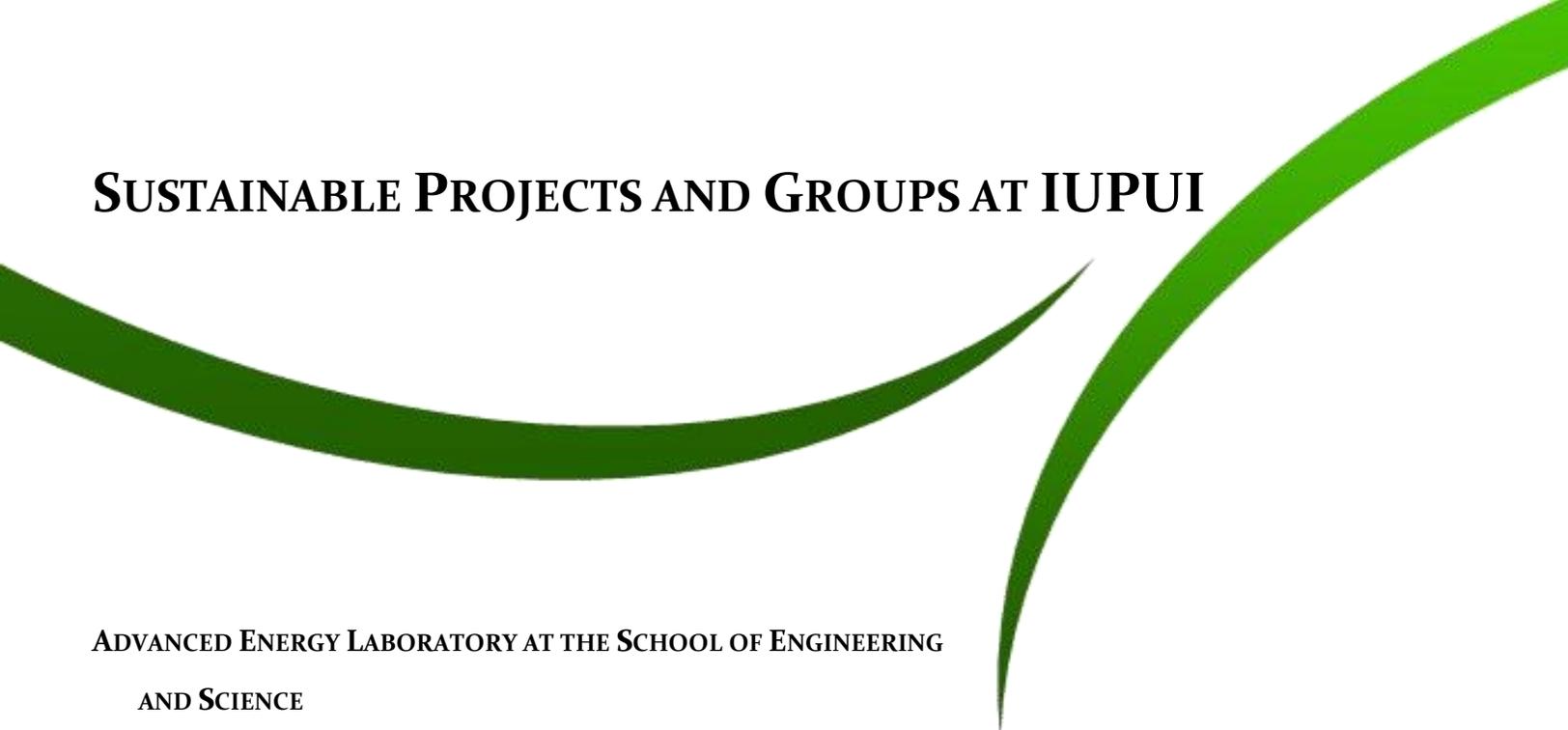
STEERING COMMITTEE INTERN

Intern: Megan Bauer

Purpose: Identification of priority areas for sustainable practices and development of internship program framework.

The creation of a guideline of potential metrics related to IUPUI and potential projects for future Sustainability Initiative Interns.

SUSTAINABLE PROJECTS AND GROUPS AT IUPUI



**ADVANCED ENERGY LABORATORY AT THE SCHOOL OF ENGINEERING
AND SCIENCE**

BICYCLE LANES ON THE IUPUI CAMPUS

CAMPUS FACILITY SERVICES – CONSERVATION PRACTICES

CAMPUS CENTER

CAMPUS TRAILS

CENTER FOR EARTH AND ENVIRONMENTAL SCIENCE

CENTER FOR URBAN HEALTH

CENTER FOR URBAN POLICY AND THE ENVIRONMENT

CHARTWELLS

COMMON THEME PROJECT

DEPARTMENT OF EARTH SCIENCES

DEPARTMENT OF GEOGRAPHY

DIGS: DEVELOPING IUPUI GARDENS SUSTAINABLY

ENGINEERS WITHOUT BORDERS

ENVIRONMENTAL LAW SOCIETY

ENVIRONMENTAL HEALTH AND SAFETY

ENVIRONMENTAL SERVICE LEARNING

GEOGRAPHY CLUB

GEOLOGY CLUB

GREENING IUPUI GRANT FUND



GLOBAL DESIGN STUDENTS

GO GREEN, IUPUI!

INTERIOR DESIGN STUDENT PROJECTS

IUPUI CAMPUS STORM DRAIN MARKING PROGRAM

IUPUI CAMPUS TREE INVENTORY

IUPUI RECYCLES

RICHARD G. LUGAR CENTER FOR RENEWABLE ENERGY

SCHOOL OF PUBLIC AND ENVIRONMENTAL AFFAIRS

SUSTAINABLE HEALTH AND NUTRITION GROUP (SHANGRI-LA)

TOBACCO FREE IUPUI

UNDERGRADUATE SUSTAINABILITY EDUCATION INITIATIVE

UNIVERSITY PLACE CONFERENCE CENTER AND HOTEL

REFERENCES

- Frankel, C. (1998). *In earth's company: Business, environment, and the challenge of sustainability*. Gabriola Island, BC, Canada: New Society Publishers.
- Indiana University-Purdue University Indianapolis: Report Card 2009. (2008). Retrieved from The College Sustainability Report Card website: <http://www.greenreportcard.org/report-card-2009/schools/indiana-universitypurdue-university-indianap>
- Indiana University-Purdue University Indianapolis: Report Card 2010. (2009). Retrieved from The College Sustainability Report Card website: <http://www.greenreportcard.org/report-card-2010/schools/indiana-universitypurdue-university-indianap>
- Indiana University-Purdue University Indianapolis: Report Card 2011. (2010). Retrieved from The College Sustainability Report Card website: <http://www.greenreportcard.org/report-card-2011/schools/indiana-universitypurdue-university-indianap>
- McDonough, W. and Braungart, M. (2002). *Cradle to cradle: Remaking the way we make things*. New York: North Point Press.
- The United Nations Centre for Human Settlements (Habitat). (2001). *The State of the World's Cities Report*, <http://www.unhabitat.org/Istanbul+5/statereport1.htm> (10 January 2005).