



SUSTAINABILITY

Knox College



To the Knox Community,

One of the most pressing issues of the 21st century is sustainability: restoring and preserving the living things on our planet so that future generations have safe and fulfilling lives. Knox College has begun to address the issue of sustainability by a variety of initiatives, such as making sustainability an explicit element of the

College's strategic plan, funding two separate energy conservation projects totaling over \$4.5 million to reduce the College's use of fossil fuel generated energy, and establishing a presidential task force of students, faculty, and staff to explore and encourage additional steps to promote sustainability.

Although additional institutional changes at Knox will be necessary to move the College towards being carbon neutral, no change will be more important than establishing a culture of sustainability on our campus. A culture of sustainability will involve each of us taking responsibility for altering how we behave so as to promote sustainability. We should remind ourselves and each other that we cannot just sit back and point out what others can do to promote sustainability. We should think about what we can do ourselves.

What follows is a how-to handbook of tips for how each of us can contribute to sustainability. We should thank Abby Pardick '10, Chair of the Knox Student Senate Sustainability Committee for 2008-2009, for preparing this handbook. Please take a minute to review the handbook and think how you can adopt as many of its tips as you can. Working together, we can develop a culture of sustainability and enhance Knox's contributions to restoring and preserving our planet.

Roger Taylor '63
President

By now you are probably thinking,

“What is s-u-s-t-a-i-n-a-b-i-l-i-t-y anyway?”.

In 2008, with the hard work of the Student Senate Sustainability Committee and the Presidential Task Force on Sustainability, we came up with this Knox-specific definition:

sus·tain·a·bil·i·ty, noun

We at Knox College recognize that our actions influence the environments of our local and global communities. In order to explore, understand, and build relationships with these communities, we must strive to become more sustainable. Being sustainable requires us to meet the needs of the present without compromising the ability of future humans and other species to meet their own needs. By fostering a culture of sustainability, we at Knox accept our responsibility to configure our educational programs, institutional and social structures, and economic actions to preserve the ecosystems of the Earth.

In May of 2008 President Roger Taylor signed the **Talloires Declaration** which will help guide **Knox** to a sustainable future. The ten guidelines for this internationally-recognized declaration for sustainability are:

1. Increase Awareness of Environmentally Sustainable Development

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

2. Create an Institutional Culture of Sustainability

Encourage other colleges and 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 Knox 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 Knox faculty to teach environmental literacy to all students of the Knox Community.

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 non-governmental organizations to assist in finding solutions to environmental problems.

7. Collaborate for Interdisciplinary Approaches

Convene college 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 college and university effort toward a sustainable future.

10. Maintain the Movement

Continue the momentum in carrying out this declaration.

- The Presidential Sustainability Task Force and the Student Sustainability Committee should maintain contact at bi-monthly meetings.
- Annually reevaluate the Talloires Declaration in accordance with Knox's current needs, interests, and abilities.

In cooperation with the
 Illinois Green Government Coordinating Council
 and universities and community colleges across Illinois,
 Knox College
 joins the Illinois Sustainable University Compact,
 pledging to accomplish these 9 goals by December 31, 2010.

1. Join the U.S. Environmental Protection Agency's ENERGY STAR Challenge to increase energy efficiency on campus
2. Pledge that all new buildings constructed on campus will earn the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) certification
3. Promote more sustainable transportation options, such as
 - a. Purchasing hybrid and flex-fuel vehicles whenever possible
 - b. Using renewable fuels for our campus fleet
 - c. Establishing successful car-sharing and carpooling programs on campus
4. Reduce water usage on campus by at least 15%
5. Complete at least one stormwater management project, such as
 - a. Installing permeable pavement in a parking lot on campus
 - b. Creating a rain garden to reduce damage from campus flooding
 - c. Incorporating swales into landscaping to improve drainage and reduce erosion
6. Increase the amount of overall waste recycled on campus by at least 15%
7. Purchase non-toxic cleaning products whenever practical
8. Compost at least 5,000 cubic yards of the organic waste produced on campus
9. Reduce pesticide use by establishing integrated pest management practices at all facilities on campus

What We've Done

On October 19, 2007, the Knox College Board of Trustees approved the Strategic Plan for Knox College. The Strategic Plan calls for a campus-wide discussion of sustainability and its impact on the Knox community, and indeed, the world.

To facilitate this campus conversation, President Roger Taylor appointed a Sustainability Task Force. The Task Force is charged with reviewing previous initiatives, recommending new initiatives, and encouraging a campus-wide culture of awareness and understanding about the impact our individual and collective actions have on the larger world.

In recent years, Knox College has made a serious effort to complete projects in a more environmentally sustainable way. And, in cooperation with students, faculty and staff, the College has focused on energy efficiency and recycling.

1999-2000 Projects and Initiatives

- Campus wide energy audit.
- Phase I lighting retrofit, installing energy-efficient lighting and fixtures in seven academic buildings: Umbeck Science-Mathematics Center, Seymour Library, Old Main, George Davis Hall, Old Jail, Memorial Gym, and maintenance buildings. Replaced nearly 6,000 fixtures.

2003-2004 Projects and Initiatives

- Energy efficient, reflective roofs installed on the Center for Fine Arts and Seymour Library, greatly reducing heat load during summer months.
- Prairie plot planted near tennis courts, no pesticides or herbicides were used; native plants only.

2005-2006 Projects and Initiatives

- Phase II lighting retrofit in eight residential buildings, Center for Fine Arts and Seymour Union to conserve energy.
- Installed building control systems for central temperature regulation, saving more than \$360,000 in annual energy costs.
- Pool cover in the Lay Natatorium installed to prevent heat and chemical loss.
- Complete theatrical lighting system replacement in Harbach Theatre, modernizing the system using energy efficient fixtures.

2006-2007 Projects and Initiatives

Completed E. & L. Andrew Fitness Center with high efficiency heating, cooling, and lighting systems. Also, the center was built with all Low-emittance (Low-E) coated windows, which prevent heat and ultra-violet (UV) rays from passing through glass.



2007-2008 Projects and Initiatives

- Refurbished and renovated Hamblin Hall, including adding 29 additional bed spaces, new windows, heating and air conditioning, and energy efficient lighting.
- Created the Student Senate Sustainability Committee.
- Created the Student Senate Green Fee.
- Student-run Community Garden formed.
- Purchased building materials for the Knox Bike and Garden Shed.
- Nathan Engstrom, Sustainability Director at Oberlin, evaluated Knox's Sustainability movement.
- President Taylor signed the Talloires Declaration.
- Trayless Resolution passed through Student Senate which will cut down on food and water waste in the Hard Knox Café and Oak Room.



2008-2009 Projects and Initiatives

- Environmental Studies became a department and added a tenure line in Geosciences.
- President Roger Taylor signed the Illinois Sustainable University Compact, which pledges Knox to accomplish nine goals by the end of 2010.
- Green Fee funds were given to the Bike Sharing Program for 15 bicycles, accessories, and tools.
- Implemented re-usable take-out containers for the cafeteria and Oak Room.
- President Roger Taylor engaged the Knox community in the college's sustainability efforts through an All Constituent Letter (PDF).
- A Knox student, Jules Trachsel, created a bike trailer which is used to collect paper for recycling three times a week. This has partially replaced motor vehicle pick up.
- Human Resources developed walking programs for employees to promote exercise and reduce the use of motor vehicles.

2009-2010 Planned Projects and Initiatives

- Integrating ecological sustainability into the academic and co-curricular education that students at Knox receive.
- Examining and developing financial means for large-scale sustainable initiatives on campus.
- Implementing a plan to get students, staff, and faculty more involved in the campus recycling effort.
- Investigating the potential of reducing carbon emissions by banning the selling of bottled water on campus.
- Making reclaimed bicycles available to students.
- The Green Fee is funding student sponsored sustainability projects.

Student Senate Sustainability Committee Green Fee Regulations

The Student Senate Sustainability Committee was formed during the 2007-2008 Academic Year. During their first year they approved the following guidelines to help students pursue their own green projects on the Knox campus.

I.) Purpose

This document shall serve as the set of rules and regulations the Sustainability Committee shall honor and consider before allocating funds from the "Green Fee" to Knox College Students.

II.) Distribution of Green Fee Monies

1.) Responsibilities of the Sustainability Committee

- A.) The Sustainability Committee has oversight of all funds requests regarding the sustainability of Knox College. The Sustainability Committee contact person shall be the chair of the Sustainability Committee unless the Executive Board of the Student Senate appoints another person. This student shall make him/herself available to students to answer questions regarding sustainability and the securing of funds for projects.

2.) Allocation of Funds

- A.) The Sustainability Committee shall make recommendations to the Student Senate general assembly as to what projects should receive funding.
- B.) All members of the Knox College student body are eligible to request funds from the Sustainability Committee
- C.) Funds allocated by the Sustainability Committee must be utilized before the end of the academic term in which funds are granted.
- D.) All unused funds, both by students and by the committee itself, return and remain at the discretion of the committee at the end of each academic term.
- E.) At the end of each academic year, any unused monies roll over into the Sustainability Committee's budget for the following year.

III.) Acquisition and Use of Funds

1.) Acquisition

- A.) Students who wish to use Green Fee monies must first petition the Sustainability Committee by filling out the required request form and returning it to the chair of the Sustainability Committee.
- B.) Funds may only be used for projects on the real property of Knox College.
- C.) A request must include the names of at least four (4) Knox College students who will be responsible for the project in question.
- D.) Students invested in a funds request shall appear before the Sustainability Committee to present their project.
- E.) A majority vote of the Sustainability Committee members present at the meeting at which a funds request is reviewed will be reported to the Student Senate as a recommendation for approval of the request at the following meeting of the Student Senate general assembly.
- F.) In the event of a favorable decision by both the Sustainability Committee and the Student Senate on a student's funds request, transaction requests will be arranged with the staff members in the Campus Life Office.
- G.) Requests exceeding \$10,000.00 shall require not only Sustainability Committee & Student Senate approval, but the approval of the Dean of Students as well.
- H.) Sustainability Committee reserves the right to add stipulations to any proposal in order to ensure the integrity of the Green Fee monies.

2.) Use

- A.) Green Fee monies shall only be used for services and products which directly increase the sustainability of Knox College.
- B.) Monies shall never be to purchase/pay for; Food, Clothing, Media, Speakers, Trips away from campus, student reimbursement, or Illegal Substances.

Want to get involved?

KARES

KARES (Knox Advocates for Recycling and Environmental Support) is a group that, as its name implies, cares about the environment. KARES seeks to promote education and support of environmentally-friendly practices. The club also hosts events like Earth Day celebrations and spring gardening. KARES works to encourage recycling on campus in various ways. The club also works to educate students about various environmental issues (including pollution, sustainability, and city sprawl).

Student Senate Sustainability Committee

The Student Senate has several important functions on the Knox campus. It provides a forum for debate on campus issues, makes recommendations concerning those issues, has a role in determining how student activity fee funds will be spent and makes student appointments to faculty committees. Student Senate encourages every member of the Knox community to come to the meetings and express their ideas. The Senate Sustainability Committee deals directly with issues on campus involving sustainability

The Outdoors Club

The Knox Outdoors Club is on campus to promote people being outside and doing various outdoor activities. Past events have included rock climbing, spelunking, horseback riding, camping, and canoeing.

The Knox Community Garden

The Community Garden is a student run project that promotes sustainable agriculture on campus. There are a variety of crops planted each spring.

Presidential Sustainability Task Force

The Task Force addresses campus sustainability on a larger scale and is comprised of the College President, Sustainability Committee representatives, at-large student representatives, head of the Environmental Studies department, other professors, and the director of Facilities Services.

Food for Thought

Food for Thought promotes educational activities about making sustainable food decisions. It also works with the campus dining services to make sustainable changes.

Friends of Green Oaks

FOGO hosts events such as trail clearing, invasive species control, campouts, and leisure activities at Knox's 700 acre woodland preserve.

FIJI

FIJI is one of Knox's fraternities that has implemented a Sustainability Chair and is working to "green" their campus house and educate their members on sustainable issues.

Eco House

The Eco House is one campus housing option solely dedicated to living in a sustainable manner. Residents work together to show how such a lifestyle is completely practical and functional.

The Free Store

The Free Store is a student-run "store" where students can leave items such as clothing, books, and school supplies that are in good condition for other students to take for free.

How to Recycle at Knox

1. Obtain a white recycling bag from under the KARES Board outside of the Hard Knox Café.
2. Put your recyclables in the white bag; large boxes can be broken down and placed next to the bags
3. Put the tied white bag outside of the entrance to your building on Thursdays BEFORE 10:00 a.m.

If you have recycling bags that are full before the Thursday pick up you can place boxes and tied bags in an outdoor recycling center located in the center of the Quads, behind Williston, or behind the Hamblin Apartments.

What is Recyclable at Knox?



- **#1, 2, 3, 4, 5, & 7 Plastics** – such as soda bottles
- **Any Metal** – must be separate physically from any non-metal (it can be in the same bag)
- **Cardboard** – such as cereal boxes and shipping boxes
- **Paper, Newspaper and Magazines**
- **Glass**

What is NOT Recyclable at Knox?

- **Wax covered cartons (such as orange juice cartons)**
- **Styrofoam**
- **Gizmo water cups**
- **Solo cups**
- **Disposable dishes**
- **Gum wrappers**
- **Food**
- **Broken glass**

Green Oaks: The Knox Biological Field Station

Knox College's Green Oaks Biological Field Station is a place of serene beauty and exceptional natural diversity. Since its acquisition in the 1950s, it has become, for many, a deeply valued part of the Knox experience. It is a place for community-building gatherings of students and faculty, such as the legendary Prairie Burns and Green Oaks Term, and for solitary reflection and inspiration.

Green Oaks is located near the Spoon River in western Knox County, about 20 miles east of the Knox campus. Both a research and recreation area, Green Oaks encompasses 700 acres of forest, grassland and aquatic habitat and includes the second-oldest restored tall-grass prairie in North America.

Its trails lead through stretches of uncut native forest, past centuries-old oak trees, and along placid lakes and ponds where strip mines once scarred the land. Open fields that once grew corn have given way to one of the Midwest's oldest and most successful prairie restorations. The forests, streams and prairies of Green Oaks are home to rare native plant and animal species, a testimony to conscientious stewardship and to the recuperative vitality of nature.

Green Oaks is a site of learning in various forms—from student Honors projects to day trips to the 10-week interdisciplinary Green Oaks Term—in disciplines ranging from environmental studies to art to philosophy. And yet the land is not reserved exclusively for academic use; any member of the Knox community may hike along its well-marked trails, fish in its ponds, or stay overnight in its camping area.

The Prairie Burn

One of Knox College's most valued traditions is the annual spring Prairie Burn, which brings together students from all disciplines in a prairie restoration project that inspired the name for Knox College's "Prairie Fire" athletic teams.

The Prairie Burns, first conducted in the 1950s by Knox professor Paul Shepard, protect prairie grasses from intrusions of woodland scrub and competition with "exotic" species that have been introduced to Illinois from other regions or countries—to the detriment of organisms that have evolved over millions of years in delicate balance with the environment and each other.

The Prairie Burns at Green Oaks are one of the factors making Green Oaks the second-oldest restored tall-grass prairie in North America.

Green Oaks Term

Green Oaks Term has been described as a seamless web connecting academic life, solitude, group activity, and the practical challenges of daily living. Offered once every two years during spring term, the term offers 12 students the opportunity to reside at DeWitt Brown Research Center at Knox's Green Oaks Biological Field Station.

During their ten weeks at Green Oaks, students are immersed in an interdisciplinary curriculum taught by Knox faculty from three different academic departments. Guest speakers and field trips are common supplements. Green Oaks alumni have applied their experiences at the Field Station to Knox honors projects, postgraduate studies in several academic disciplines, artistic projects, Peace Corps work, and employment in fields ranging from landscape design to public science education.

The Environmental Studies Department

The Environmental Studies program was started in 1993 as a minor. In 2000 it became a major and as of the 2008-2009 academic year, it stands as a department with a new professor with a geoscience and geographic information systems background.

The program draws on faculty expertise in the departments of biology, chemistry, economics, philosophy, psychology, history, anthropology, and sociology. Many classes are cross listed with other disciplines, but there are a growing number of Environmental Studies-specific courses being offered.

Besides the normal course work, there are many opportunities for students to attend field trips and conferences. For instance, in every October since 2002, Professor Schwartzman, chair of the Department, has led a Knox contingent (of up to forty-six students) to the Bioneers conference. The annual Bioneers conference is "a gathering of scientific and social innovators who have demonstrated visionary and practical models for restoring the Earth and communities." Locations have ranged from Traverse City, Michigan, to Bloomington, Indiana, to Carbondale, Illinois. In 2007-2008, students also attended environmental conferences at Luther College and in Chicago.

Knox offers many research, off-campus, and overseas programs that are focused on environmental issues. Students have attended such programs in the United States at the Oak Ridge National Laboratory, through the Urban Studies Program in Chicago, as well as Green Oaks. Internationally, students have studied in Thailand, Tanzania, Kenya, Costa Rica, Mexico, India, and the Turks & Caicos.

Students may complete either a major or a minor in environmental studies. The major requires introductory and advanced courses in environmental studies, as well as courses in statistics and a senior project or paper in which the student examines a specific environmental issue from an interdisciplinary perspective.

In 2008, a \$30,000 grant from the Ellen Browning Scripps Foundation began providing opportunities for Knox College faculty and students across a broad range of disciplines to pursue research through the use of geographic information systems (GIS). Specifically the funds established the Ellen Browning Scripps GIS Laboratory, a facility equipped with the latest GIS software, GPS receivers, and a digital projection system for classroom activities. GIS technology allows researchers to explore the spatial distribution of their subjects of study, whether features of the natural environment, voting patterns, or other human behavior. Recent GIS applications on the Knox campus have ranged from an analysis of sex ratios among the world's nations to a study of the distribution of neighborhood parks in the city of Chicago. The enhanced GIS lab enables Knox College to offer GIS classes for the first time.

The Environmental Studies Department also houses a wide range of environmentally-related periodicals, newsletters, and films. All Knox students are invited to come peruse these collections.

Knox Alumni Working for Sustainability

Restoration Technician, McGintry Bros., Inc., Long Grove, Illinois. Selene Gonzalez '08. Environmental Studies and Spanish.

Intern, Division of Environmental Concern, DuPage County, Wheaton, Illinois. Briana Goodwin '08. Environmental Studies major. Biology minor.

Staff member, Rebuild Together, New Orleans, Louisiana. Sarah Burger '08.

Peace Corps, Malawi. Bryan Quinn '02.

Deputy Director, Illinois Environmental Protection Agency, Springfield, Illinois. William Seith '81

Graduate student, Conservation Biology and Sustainable Development, University of Wisconsin, Desmond Fortes '00.

Environmentalist, U. S. Environmental Protection Agency, Chicago, Illinois. Marcia Damato '87.

USDA Forest Hydrologist, Hiawatha National Forest, Escanaba, Michigan. Robert W. Hennes '75.

Professor of Biology, Wabash College, Crawfordsville, Indiana. David T. Krohne '74.

Technical Assistance Program Manager, Border Environment Corporation, El Paso, Texas. April Lander '87.

Naturalist/Data Analyst, Du Page County, DuPage, Illinois. Forest Preserve, Rachel Reklau '96.

For more information:

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Knox Sustainability Web page
www.knox.edu/sustainability

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