

## Green Steps: Berea College's Movement toward Sustainability

*Berea College's mission includes a long-standing commitment that we engage in good stewardship of our natural, human and material resources. To that end, we are moving aggressively to transform our College into a sustainable campus that meets its educational and community goals without degrading the ecological, social, and economic systems on which our region and all of our futures depend.*

Larry Shinn, President, Berea College

Berea College is taking a three-pronged approach to becoming a sustainable campus with changes to its physical plant, operations, and curriculum. All three tracks are integrated to maximize experiential learning opportunities during planning and implementation, and afterwards as students, staff and faculty live and work in a sustainable community.

**Physical Plant:** New construction and renovations are guided by ecological design – the application of ecological principles to the design of sustainable technologies, buildings, and landscapes. By working with nature, and making energy, water, and material flows visible, the campus operates more efficiently and presents an “architecture that teaches.”



Ecovillage

The Berea College Ecovillage is an ecologically- and socially-sustainable residential and learning complex primarily for student families. The townhouse apartments are designed to use 75% less energy and water than conventional housing, and an ecological machine converts all sewage to swimmable-quality water. The Child Development Laboratory is an ecologically-designed facility with a curriculum that introduces pre-schoolers to gardening, composting, and recycling.

Renovation standards developed by the college require renovation practices that improve building performance and reduce environmental impact in building construction and operation. The standards address lighting, energy use, occupant behavior and control of the building, materials for construction, waste management and recycling, water conservation and quality, and use of the buildings for teaching and demonstration of sustainable design.

Renovations: Lincoln Hall (Administration) is the first building in Kentucky to receive LEED certification. Draper Hall (Classrooms) features day-lighting, stack ventilation, and use of rainwater for toilet flushing. Kentucky-Talcott (dormitory) now has improved energy efficiency and illustrates re-use of building materials.

**Campus Operations:** Appropriate design can move a campus only partially toward sustainability. Choices regarding purchasing, recycling, and even how long a low-flow showerhead is turned on ultimately determine whether a campus is sustainable. Operational decisions at levels from the college administration to departments to individuals are increasingly taking sustainability into consideration.

The Energy Master Plan guides new construction and conservation efforts with the goal of a 45% reduction in campus energy use by 2015. The coal-fired heat plant is being replaced with a more efficient natural gas-fired plant. Building renovations are being done under low-energy renovation standards and selected buildings are being retrofitted with added insulation, new windows, and efficient lighting.

Sustainability Indicators: Berea College has identified 24 indicators of ecological sustainability that it uses to evaluate the college's progress toward sustainability. The Campus Environmental Policy Committee reviews indicator trends and makes policy recommendations to improve those trends.

**Green Purchasing:** Berea College Printing Services purchases 100% recycled paper for campus printers and copy machines. Paper hand towels and toilet paper include recycled content. The College is a member of the Workers Rights Consortium that seeks to ensure fair labor conditions in factories producing college apparel and other goods.

**Recycling and composting:** A recycling center at the College collects paper, cardboard, paperboard, plastic (#1 and #2), aluminum, steel, and glass, and diverts approximately 20% of the municipal waste flow. All pre-consumer food wastes from the College's food service are composted by greenhouse employees. Under college renovation standards more than 50% of the materials removed from renovated buildings is recycled or reused.

**Local Food Initiative:** Led by a steering committee of students, faculty, and staff, the Berea College Local Food Initiative is actively promoting the development of a local food system in which the college would be a major participant, both in food production and local purchasing.

**Gardens, Farm, Forest:** Eight of Berea College's 635 acres of farmland is managed under its horticulture and gardens program. Produce from the student-run organic gardens and greenhouses is sold to members of the college and town. The grazing-based livestock systems used on the farm are among the most sustainable for this region. The 8000-acre college forest is managed for water supply, recreation, teaching, and sustainable harvest.

**Curriculum:** The formal curriculum of courses and classrooms accounts for only part of the learning at Berea regarding sustainability. An informal curriculum of internships, labor programs, student initiatives and residential life programs operates outside the classroom.



SENS class

The Sustainability and Environmental Studies (SENS) Program is a multidisciplinary program that explores the challenges of creating a sustainable society. SENS emphasizes experiential learning (learning-by-doing) and lateral thinking – the ability to see and understand relationships. Core courses include ecology, ecological design, green architecture, and agroforestry. The Compton Internships give students hands-on experience in ecological design.

SENS House is an ecologically-designed demonstration house and residence for four student SENS House Directors. As part of the college labor program, the SENS House promotes sustainable living through demonstrating simple living, green technology, and sustainable lifestyle choices and offering community-, ecovillage-, and campus-based programs and workshops on sustainability.

Green Team is a Campus Life staff and student effort to increase campus sustainability. Current efforts focus on promoting recycling in residence halls and other campus buildings.

**Student Initiatives:** HEAL, a student-run environmental and social justice organization, promotes initiatives including green purchasing, Ten by Ten Campaign (10% renewable energy for Berea by the year 2010), and the Community Bike Project. La Vida Nueva is a female residential cooperative that purchases local and organic food and whose members live in a manner that supports social justice.

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