

Edgewood College
Madison, Wisconsin
Annual Report for 2008
March 9, 2009

Executive Summary

Edgewood College is committed to creating a sustainable environmental management system for the entire campus living and learning community. By becoming a Green Tier participant, Edgewood College reaffirmed its commitment to complying with regulatory requirements, reducing our ecological impacts, fostering continuous improvement and integrating environmental awareness and conservation into our curriculum.

For the year 2008, our plan was to: (1) conduct an energy audit, (2) create a Campus Sustainability Coordinating Team, (3) create EMS guidance document, (4) ongoing eradication of invasive species, and (5) motivate a LEED lifestyle.

We also wanted to implement a wide variety of initiatives to reduce energy use. We did not establish an overall reduction goal because we first wanted to create a database that would contain the needed measurement information.

During 2008, some of our most significant accomplishments were:

- A campus-wide Energy Efficiency Identification Audit was conducted by Focus on Energy in February 2008 as one of the first steps toward further energy conservation. Both short- (twelve months or less) and long-term project recommendations were made.
- MG&E conducted a more in-depth follow-up customer evaluation for the Sonderegger Science Center as one of the recommendations from the Focus on Energy audit.
- Roof repair, insulation and remodeling projects were completed to meet recommendation in the energy audit and to follow LEED guidance where possible.
- A Campus Sustainability Coordination Team has been instituted for the campus, which consist of facilities personnel, faculty, and students. The committee meets monthly.
- Energy reduction has been achieved by the Facilities Department by replacing lighting in classrooms and hallways, and a variety of other activities.
- A database was created that contains electricity and natural gas use for 2004-2007 as a benchmark. Information was obtained from MG&E. During 2008, we updated the data for all the buildings on campus.
- New washing machines expected to save approximately 342,500 gallons of water annually.
- Bus use increased by 18% and shuttle program use increased by 67%.

Introduction

Edgewood College is a liberal arts college located in Madison, Wisconsin, adjacent to Lake Wingra. The college is administered by the Sinsinawa Dominican Sisters. The fifty-five acre campus also includes a high school and elementary school.

Edgewood College applied to become a member of the Green Tier program in June 2006. The application was approved in October 2006. This report is the second annual report to be submitted to the Wisconsin Department of Natural Resources by Edgewood College.

Environmental Performance

Performance on Five Goals for 2008 (Stated in the Previous Year's Annual Report)

Our 2007 Green Tier Report contained five goals for 2008. The goals are reproduced below, with a short summary on our progress.

Goal #1: Energy audit to be conducted by Focus on Energy, with results informing future goals and strategies.

Results: Initial campus-wide audit was completed by Focus on Energy in February 2008. The results were shared with facilities management and in-depth specific building analysis is underway.

Goal #2: Create a Campus Sustainability Coordination Committee composed of facility personnel, faculty, and student life office

Results: In Spring 2008 a Campus Sustainability Coordinating Team (CSCT) was created. The team consists of staff, faculty, and students. The team meets the first week of every month to review goals and accomplishments, and to coordinate activities. The team's goals include the following:

- coordinate campus sustainability efforts and activities on campus,
- define roles and responsibilities,
- champion and advocate priorities,
- coordinate communication between campus and community sustainability partners,
- disseminate relevant information on campus.

Goal #3: Create EMS guidance document boardwalk

Results: The EMS guidance document was created March 2008.

Goal #4: Ongoing eradication of invasive species along Lake Wingra boardwalk

Results: During the Spring 2008 and Fall 2008 semesters our campus horticulturist organized students enrolled in specific classes, student volunteers, and community partners to remove purple loose strife and buckthorn from the Lake Wingra shoreline.

Goal #5: Incorporating LEED elements into student lifestyle

Results: Resident Assistants in Dominican Hall, our LEED certified residence hall, conducted meetings with residents to improve their environmental behaviors.

Other Goal-Related Accomplishments

Following are environmental performance initiatives achieved during 2008:

- Electricity and Natural Gas Use
 - The overall use of **natural gas** in 2008 increased from 0.0973 therms/ft² in 2007 to 0.1022, an increase of 5%. However, when adjusted for colder weather using heating degree days, the relative usage of natural gas decreased by 12.7% in 2008.
 - The overall use of **electricity** in 2008 decreased from 11.3618 kWh/ft² in 2007 to 11.3425, a decrease of 1.7%
 - Conducted infrared photography for all campus buildings looking for heat loss.
 - Partnered with Residence Life to promote energy savings and recycling
 - Replaced humidifiers in Library with high-efficiency units
 - Replaced incandescent lighting with compact fluorescent lights as incandescent lights burn out
 - Completed installation of light sensors in the parking ramp.
 - Reduced lighting potential by one-third in the hallways by removing some fluorescent bulbs.
 - Used LED lights for the annual Christmas tree and outdoor holiday lights, which use 83% less energy
 - Reduced the number of outdoor Christmas lights from 30,000 to 5,000.
 - Installed covers over the interior of window air conditioners.
 - An **Eco-Olympics** was held during the Spring 2008 semester where students in each of the five residence halls competed to reduce electricity, heat, and water use, compared to a pre-Olympic benchmark. The winning residence halls obtained 24.3%² reduction in water use [compared to 21% Spring 2007], 16.8% reduction in electricity use [compared to 15.3% reduction in Spring 2007], and 32.7% reduction in heat use [compared to 44% reduction in Spring 2007].

- Water Usage
 - All student washing machines on campus were replaced with water saver models. Facility staff estimated this will save approximately 342,500 gallons of water throughout the residence halls. The savings should be measureable next year.
 - Installed the remainder of low-flow shower heads in the residence halls.

- Facility Enhancements
 - The metal roof panels that were hail-damaged were replaced. 7,300 pounds of roof panels were recycled. Another approximately 700 pounds is awaiting replacement and recycling.

 - Insulation was installed in the roof of Regina Hall and Marshall Hall. Savings will be measureable next season.

- Transportation

- Bus usage for the 2007-2008 academic year by Edgewood employees and students increased by 18% (1,415 to 1,668).
- The Shuttle Program passenger use for the 2007-2008 academic year increased by 67% (37 to 62).
- Sustainability and Training
 - Completed Practical Energy Management for Commercial Buildings Course
 - Dining Services has achieved the Green Restaurant Association designation.
 - Presentation on sustainability made at a monthly Staff Association meeting
 - Started planning for a community garden
 - Started planning for a Sustainability Tour on campus with information signage

EMS Audit

In early 2008, Edgewood College's Environmental Health and Safety Director used the EMS audit baseline evaluation performed by DNR in October 2007 to conduct our initial audit of EMS implementation and performance. The document consisted of a checklist format provided by DNR. The format analyzed environmental policy, planning, implementation and operations, checking and corrective action, and administrative review.

The EH&SD reviewed documents, interviewed key constituents, and shared information during meetings. Based on this information, the EH&SD evaluated Edgewood's compliance with the EMS audit requirements using a 0 to 3 scoring system. The initial 2007 audit was submitted to DNR for feedback. Discussion with the DNR indicated that a different format might be appropriate and provide more details.

The EH&SD obtained a variety of other EMS Audit formats with the intention of using for the 2008 audit. Our DNR representative offered to be involved in guiding us with the 2008 field audit.

In order to continue to make progress on our 2008 EMS Audit, the EH&SD has reviewed several formats and decided that the most applicable one is the "ISO 14001-1996 Environmental Management System Audit Checklist." An initial draft using this format will be completed in March 2009.

Stakeholder Involvement

- Staff Education
 - Sustainability presentation made at Staff Association meeting
 - Staff inclusion on Campus Sustainability Coordinating Team
- Student Education
 - Students participated in the annual Eco-Olympics; they learned best practices in environmental management and educated residence hall students about environmental behaviors.

- Promoted energy savings and recycling ideas during mandatory Residence Hall meetings
- Neighborhood Involvement
 - The Boardwalk is available to the public as well campus community. Boardwalk extension completed, benches added to structure, and signage enhanced.
 - A survey of boardwalk availability and use was conducted in the surrounding neighborhoods. The feedback from neighbors was extremely positive.
 - The college partners with Friends of Lake Wingra and the Park and Pleasure Drive Association to manage and enhance the lakefront property.

DNR Relationship

The implementation of the Green Tier program has led to our inclusion in the Wisconsin Association of Independent Colleges and Universities (WAICU) EPA/DNR peer audit program. Edgewood attended training and task force meetings with the WAICU environmental consultant and the legal liaison between WAICU and DNR.

As a result of Green Tier participation, Edgewood College Business School Professor Denis Collins currently serves on the Green Tier Advisory Committee. He is in the process of organizing a state-wide Wisconsin higher education “sustainability dialogue” for June 5, 2009 at University of Wisconsin-Stevens Point. The planning committee includes Thomas Eggert of DNR, and he will be presenting the Green Tier program to all participants. Professor Collins has created a list of all professors and physical plant managers at 4-year public, 2-year public, technical colleges, and private universities for information distribution purposes.

Future Environmental Target Areas

For 2009, target areas to be focused on include:

Goal #1: Reduce overall energy use by 3%

Goal #2: Conduct a “Green Room” audit for at least 30% of Residence Hall rooms on campus

Goal #3: Reduce Dining Room Services waste

Goal #4: Increase use of local products for Dining Room Services

Goal #5: Educate campus community about Green Tier and other environmental accomplishments

Concluding Comments

Green Tier has contributed to Edgewood College making significant progress in greening our campus. We look forward to our continued evolution as an environmental leader in higher education.