



Edgewood College
2015 Green Tier Report



EDGEWOOD COLLEGE



TABLE OF CONTENTS

- I. Executive Summary**
- II. Introduction**
- III. Environmental Performance**
 - a. Electricity and Natural Gas Use**
 - b. Water Use**
 - c. Buildings**
 - d. Waste**
 - e. Landscape and Grounds**
 - f. Transportation**
 - i. Madison Metro Bus Program**
 - ii. Commuter Shuttle Program**
 - iii. Commuter Biking Program**
 - g. Dining Services**
 - h. Paper Use and Information Technology**
 - i. Paper Use**
 - ii. Computer Management**
 - i. Sustainability Fund**
 - j. Campus Sustainability Plan Approval**
 - k. Communications**
- IV. EMS Audit**
- V. Stakeholder Involvement**
 - a. Undergraduate Studies**
 - b. Graduate Studies**
 - c. Wood's Edge and Earth Week Activities**
 - d. Staff & Faculty Education**
 - e. Neighborhood Involvement**
- VI. DNR Relationship**
- VII. Conclusion**



**Edgewood College
Madison, Wisconsin
Annual Report for 2014
July 1, 2015**

I. 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 its environmental policy which includes four major strategies; 1) complying with regulatory requirements, 2) reducing our ecological impacts, 3) fostering continuous improvement and 4) integrating environmental awareness and conservation into our curriculum.

For the year 2014, we had several goals that shaped the College's environmental and sustainability efforts:

Goal 1 -- Planning: Distribute Campus Sustainability Plan priorities to appropriate work unit for developing targets and strategies.

Outcome: The Campus Sustainability Plan created by the Campus Sustainability Coordinating Team was approved by the President's Leadership Team. Goals and best practices were distributed to appropriate constituent units.

Goal 2 -- Buildings: Through implementation of ongoing energy reduction projects, reduce electrical use by 2% and natural gas use by 2% in campus buildings based upon a two-year seasonally adjusted baseline.

Electricity Outcome: The College saw a decrease of 9.5% of kilowatt-hours per square foot electricity usage compared to the prior two year average used as a baseline. 84% of the 2014 decrease was in Sonderegger Science Center, our largest building and highest user of energy. Compared to 2008, the College's overall electricity usage per square foot is now 20.5% lower.

Natural Gas Outcome: The College saw a 24.0% decrease in its measurement of the weather adjusted use of natural gas compared to the prior two year base period average. Consistent with electric usage results the most significant reduction occurred in Sonderegger Science Center.

Goal 3 -- Communications: Further implement sustainability communication plan to improve stakeholder knowledge and involvement.

Outcome: The Campus Sustainability Plan was approved by the President's Leadership Team. Specific goals and best practice options were distributed to appropriate constituent units for internal planning purposes.

Other 2014 highlights include:

- 100% green power electricity was purchased from Renewable Choice for the Stream, our LEED-Gold Certified Visual Arts Theater.
- Replaced 1,498 CFL lamps/fixtures with 1,687 LED lamps/fixtures; expected energy savings is 209,453 kWh per year, with expected energy cost savings of \$23,040 per year.
- Water usage was 16% lower than the prior two year base period average
- New bottle fillers saved 21,032 plastic bottles.
- Installation of high efficient boilers
- New native gardens and edible plants
- Reduced paper use by 4.2%
- Developed a Sustainability Bulletin Board; sponsored student CSCT logo creation contest, with logo now used on communications.

The Campus Sustainability Coordinating Team continues to assess and improve the college's environmental and sustainability efforts since joining Green Tier. This review provides for the continuous improvement objective which is included in the college's environmental policy and environmental management system. The report provides further in depth information on our efforts to meet our 2014 goals.

II. 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. In 2006, Edgewood College became a member of the Green Tier Program.

Our sustainability efforts are guided by Edgewood's unique Campus Sustainability Coordinating Team (CSCT) composed of faculty, administrators, staff and students that originated in 2006. The team meets monthly to collaboratively advance sustainability initiatives.

Edgewood College has a commitment to environmental stewardship and sustainability which resonates deeply at the College, a legacy begun by the native people who first cared for this very special 55-acre campus (including high school and elementary school) on the shore of Lake Wingra. The College is honored to be part of the sustainability legacy we inherited.

III. ENVIRONMENTAL PERFORMANCE

a. Electricity and Natural Gas Use

Our goal for 2014 was to reduce energy use by 2% in campus buildings compared to a two-year baseline through implementation of ongoing energy reduction projects. The 2014 results are discussed below.

- **Electricity** – For 2014, the College saw a decrease of 9.5% of kilowatt-hours per square foot electricity usage compared to the prior two year average used as a baseline. 84% of the 2014 decrease was in Sonderegger Science Center which is Edgewood's largest building and highest user of energy. These results demonstrate the effect of the projects and initiatives the College has implemented to reduce electricity usage with much of the focus being on Sonderegger Science Center.

Compared to 2008 the College's overall electricity usage per square foot is now 20.5% lower.

- **Natural Gas** – For 2014, the College saw a 24.0% decrease in its measurement of the weather adjusted use of natural gas compared to the prior two year base period average. Consistent with electric usage results the most significant reduction occurred in Sonderegger Science Center.
- Both of these measures exclude the energy used in the College's new arts building called The Stream which opened in September 2012. This LEED certified building will be included in future comparisons when two full years of prior baseline data are available.
- **Renewable Energy** – 100% green power electricity was purchased from Renewable Choice (<http://www.renewablechoice.com>) for the Stream, our LEED-Gold Certified Visual Arts Theater.

Energy Usage Comparison Summary

	2008	2009	2010	2011	2012	2013	2014	Base Period Avg (2012 and 2013)
Electric (a)								
				<i>(a)</i>			<i>(a)</i>	
Total Billed	\$683,645	\$659,124	\$681,933	\$691,014	\$697,227	\$671,606	\$641,625	
Total Kwh's	6,996,114	6,703,811	6,674,838	6,557,369	6,325,308	6,005,933	5,581,425	6,165,621
Kwh/Sq ft	13.46	12.90	12.84	12.58	12.13	11.52	10.70	11.82
<i>% Change from Prior Year</i>		-4.16%	-0.47%	-2.02%	-3.58%	-5.03%	-7.12%	
<i>% Change from Base Period</i>							-9.48%	

	2008	2009	2010	2011	2012	2013	2014	Base Period Avg (2012 and 2013)
Gas (a)								
Total Billed	\$294,826	\$238,176	\$213,655	\$215,900	\$177,536	\$200,440	\$216,737	
Total Therms	298,599	292,340	298,232	316,648	290,959	318,178	291,023	304,569
Therms/Sq ft	0.593	0.580	0.579	0.617	0.567	0.620	0.567	0.594
Heating degree days (HDD)	7499	7487	6747	7369	5896	7263	8227	6580
Therms/Sq Ft/HDD	0.0000790	0.0000775	0.0000858	0.0000837	0.0000962	0.0000854	0.0000689	0.0000908
<i>% Change from Prior Year</i>		-1.94%	10.67%	-2.36%	14.84%	-11.23%	-19.25%	
<i>% Change from Base Period</i>							-24.05%	

(a) Amounts exclude The Stream, new in September 2012

	2012 (4 months)	2013	2014
The Stream			
Electric kwh's	178,439	575,208	558,761
Electric billed	\$22,236	\$69,292	\$64,852
Gas Therms	404	1,532	1,465
Gas billed	\$331	\$1,213	\$1,287

b. Water Use

College water usage for 2014 was 16% lower than the prior two year base period average. This was primarily due to improvements made affecting water usage in DeRicci Hall and Sonderegger Science Center.

Water Usage Comparison

	2008	2009	2010	2011	2012	2013	2014	Base Period Average (2012 and 2013)
Gallons Used	9,272,956	8,916,160	9,783,840	9,023,872	9,412,084	8,477,084	7,498,887	8,944,584
% Change from Prior Year		-3.8%	9.7%	-7.8%	4.3%	-9.9%	-11.5%	
% Change from Base Period Avg.							-16.2%	

Water Reduction Efforts:

- We installed new bottle fillers in Dominical Hall, Weber basement, Stevie, Deming Way, and 2nd floor DeRicci. This saved 21,032 bottles.
- We installed 3 more 1.28 gallon toilets in Dominican Hall.
- We implemented and continue to use water treatment in the boiler and cooling water systems. By treating the water we use in those closed loops we extend the life of the water by years versus months as with using untreated water. For example, in Marshall Hall we have used the same water in the boiler loop for 3 years now without any need to replace it as of yet due to our aggressive chemical treatment. This also helps with the cooling tower in Sonderegger which uses thousands of gallons of water per season. Keeping the water treated has cut the amount of purging it does in half at least.
- New water softeners were added in Stevie, Siena, and the library to reduce salt usage thus reducing water usage.

c. Buildings

Edgewood College maintains a continuous improvement perspective in terms of our facility operations. Enhancements in 2014 include:

- **Lighting:** We replaced 1,498 CFL lamps/fixtures with 1,687 LED lamps/fixtures. The expected energy savings is 209,453 kWh's per year, with expected energy cost savings of \$23,040 per year, for a 4.13 year payback.
- **Energy Audit:** An energy audit was performed on the Sonderegger Science Center. The audit included observing and testing major equipment and systems including the

fume hoods and controls to determine how improvements to the equipment or alteration to the controls strategies could be made to improve the energy efficiency of the system, while maintaining or improving indoor air quality and comfort. The audit aligns with Focus on Energies Retro-Commissioning Program. The Retro-Commissioning Program is the process of improving the performance of building systems, equipment, and operations as a whole. (Attached is the report.) Within the report on the bottom of page 18 there are energy efficient measures (EEMs) that were recommended as part of the energy audit.

- Of the EEMs,:
 - M1-Schedule AHU's 1 and 2
 - M2-Fix HW valve leak on AHU 2
 - M3-Fix CW valve leak on AHU 1
 - M4-Fix AHU Mixed Air Damper Issues
 - M5-Modify Rm 402 VAV Control
- M1-M4 have been completed.

We will continue to use this report as a means for prioritizing our energy reduction efforts moving forward. The main focus is (refer to page 18 again) EEM, C1-Pneumatic VAV Upgrade and Design Flow Modifications. The Sonderegger retro-commissioning is complete. We have also added a hot water heater to provide warm water to Sonderegger during the summer months that allows us to completely shut the boiler down. This has resulted in a substantial energy savings.

- **HVAC**

- *Stevie Hall*: Stevie Hall is a residence hall that typically serves freshmen and sophomore students. Stevie's capacity is 121 residents. Built in 1994, the original HVAC equipment was replaced with a highly efficient system. Specifically, we replaced three Lochinvar 80% efficient boilers dated 1994 and replaced with two 80% efficient hot water heaters and installed four high efficient 98% boilers. The original system maintained 180 degrees during the heating season and the water heaters maintained 120 degree domestic temps. The new system was designed to run on 4 boilers at lower individual outputs. The new boilers maintain water temps based on the outdoor temp. Meaning if the outdoor temp is 50 degrees the boilers maintain 100 degrees. If the outdoor temp is -50 degrees the boilers maintain 160 degrees. Based on the demand we can use anywhere from all four boilers down to one boiler. Where the old boilers had hi and low speed the new boilers have 20 speeds. This further reduces the use of resources. We heat the boiler water temp lower because of capacity. The old boilers were fed by two pumps which took longer to heat the water and run through the building. The new boilers have a pump each and two larger capacity building pumps. They heat the water faster and circulate it around the building quicker than the previous boilers but at a lower temperature. Further decreasing the resources used. The boilers also replaced the water heaters. All winter we are heating the building, so essentially the domestic water is heated free as a byproduct of heating the building. In the summer we will run one boiler to heat the domestic water at an 18% increase in efficiency.
- *Oscar Rennebohm Library*: The Library was built in 1992, and the original boiler plants was replaced 1 large 70% boiler with four of the same boilers as Stevie (described above). The domestic water is not heated off the boilers.

- *DeRicci Hall:* DeRicci Hall was built in 1960, and serves as an administrative building, and the third floor was most recently renovated to house our Nursing Program. The renovation allowed us to replace two cleaver brooks boilers dated 1960 with an efficiency of roughly 70% and full capacity at 12 mbtu. We installed four thermal solutions boilers totaling 6 mbtu at 94% efficiency. We have four thermal solutions hi efficiency boilers that heat DeRicci and Predolin. The boilers work based on the outdoor temp with the lowest hot water temp at 110 degrees and highest at 180 degrees based on outdoor temp. The boilers maintain the desired temp and stage on and off based on demand. This system has two additional pumps to circulate the water quicker and also has frequency drives on the pumps for both Predolin and DeRicci. The frequency drives operate based on the pressure created between the supply and return flow. Meaning if the heat is calling in a lot of spaces the frequency drive spins the motor up in order to get hot water quickly to those cold areas. When very few spaces need heating the frequency drive slows the motor down. This keeps the water moving slow so the boilers don't have to fire as much as the water isn't losing heat as fast with unnecessary movement. DeRicci also has a chiller that operates in regard to demand as well. The controls system we use works on an occupied/ unoccupied schedule. When the demand is very low based on the number of people on the third floor the chiller runs at a reduced capacity of as low as 25% in order to cool just the occupied rooms and the hall ways. This has frequency drives installed as well to adjust the water flow accordingly.
- *Regina Hall and New Addition:* Regina Hall, which was built in the 1950's, will receive an HVAC upgrade that will enhance the current systems efficiency and provide cooling to the existing hall (which currently houses 115 students). The new residence hall, which will be attached to the existing Regina, was designed with very high focus on energy and water efficiency, as well as a strong focus on sustainable landscape and construction and waste management throughout the construction process. The new HVAC system, which will provide heating and cooling to the new residence hall as well as the existing Regina residence hall, was developed in partnership with KJWW and Focus on Energy.

In addition, plans were developed to building an addition to Regina Hall to house about 200 more students. The addition is being designed, developed, and constructed according to LEED guidelines but we will not be applying for LEED certification. The current design earned 49 LEED points, which is high "Certified" on the border of Silver, with another 7 possible points listed. We recognize that attaining LEED certification is great public relations as well as great design. But LEED certification for building additions is a complicated process with costly administrative concerns, money which could be better invested in the building itself.

We have implemented aspects of plumbing that will reduce water usage, as well as lighting control systems. We have a plan for construction waste management and recycling and have incorporated low-emitting materials in the design of the project. We broke ground in May 2015, and the new residence hall is expected to open in August of 2016.

d. Waste

Waste Reduction Efforts:

- Edgewood College continues to use KARD Recycling and Shredding (<http://kardrecycling.com/>) to improve recycling on campus. KARD is a Paper Recycler that provides bins for paper only in specific areas. This paper is shredded and returned to paper mills to process for resale.
- Waste containers were relabeled 'Landfill' and have been paired with containers intended for single stream recycling.
- We have partnered with Rooted Curbside Compost and intend to continue to expand composting program to post-consumer beginning in the dishroom. This supports a small local business as well as diverts waste to become compost that can also be used in our garden.
- The Dining Services team also continues to donate over 1,500 pounds of food annually to local organizations feeding those with limited incomes and diverting waste from the landfill.
- Dining Services has gone trayless, resulting in less waste and less water use.
- Our Bookstore continues to recycle or reuse each corrugated box and packing material that comes into the bookstore.
- In order to reduce paper waste, the Human Resources Department continues to post resumes directly to an internal web page so that all hiring teams can view the candidates' information versus printing out copies. In addition, employee changes are done via electronic form versus paper copies.

e. **Landscape and Grounds**

- **New native gardens:** All new plantings on campus are of native origin if the areas for the plantings are favorable for them. Some instances hybrid or non-native plants are a better choice as it relates to sustainability due to the amount of resources it takes to care for native plants versus a hybrid or non-native plant. Worked with McKay Nursery to expand native flower beds on campus. The main garden we have established is next to Stevie Hall, behind the Fox Apartments. John has designed this garden to showcase a variety of woodland ephemerals, ferns, and perennial plants. There will be a brick pathway trailing through the garden and a bench to promote use by the Edgewood community. Plants will be labeled with their names to help educate those who walk through the garden.
- **Reduce pesticide use:** Due to our proximity to Lake Wingra, we are working to reduce the amount of synthetic pesticides (to include herbicides and fungicides) used in the landscape and turf. This will require that we designate more time to hand pulling or digging weeds and invasive trees. We are exploring ways to organically or minimally treat the turf to limit weeds. In addition to reducing the pesticides used on turf, we have performed a soils assessment and taken corrective measures to establish healthy soil, which will help make growing a healthy turf possible. John has worked to determine the

pH of the soil at various points around campus, and we are treating each area individually based on its needs to promote a healthy pH level.

- **Incorporate edible plants into the landscape:** As we create and remodel gardens on campus, we are working to bring in more native plants and more edible plants. We hope this will help to engage the community in learning and understanding the plants on this campus. In addition to planting perennial edibles, we will also plant annual edible plants in several of the decorative whiskey barrels we have on campus. This will give the campus the aesthetic beautiful look we for which we are striving and also give the landscape a functional use. We will encourage the community to take advantage of some of the edible plants we are planting. We also would like to add more edible trees, such as cherry, apple, plum, and pear.
- **Plant reuse:** When renovating an area of plantings, all plants that can be reused and transplanted are moved to other landscape areas. A small nursery was created for plants that have been removed and will eventually get relocated. We worked with a tree spade company to relocate smaller trees that were within the Regina expansion footprint. They were relocated to areas not identified on the master plan as potential area for building additions.
- **Invasive plants:** Each year the DNR adds species to the list of invasive plants. Many are cultivars (A plant variety that has been produced in cultivation by selective breeding.) that are already in production in local nurseries, and have been used in the ornamental plant industry for years. According to McKay Nursery Company some of the barberry plants that are on campus have now been placed on the “hot” list for invasive species. We are working with them to assure the college is not including plants that are on the watch list in any future designs on campus.
- **Master Landscape Plan:** We have been in contact with McKay Nursery to establish plans for future landscaping. With the approval of the Campus Master Plan, it will make creating a Landscape Plan more feasible. I will share the Campus Plan with our landscape designer and work with them to determine the overall Master Landscape Plan. By creating the Plan, we are better able to plan for native plants and trees to be established in appropriate locations so that they will not overgrow an area or need to be removed/relocated in the future. This will avoid incidences like the recent tree relocations or frequent garden remodeling.
- **Retention pond fountain:** A new fountain was installed in our retention pond that uses one-third less energy.
- **2015 Goals**
 - We are going to plant more butterfly gardens on campus. The monarch butterfly lays its eggs on the milkweed plant, which is the only thing their caterpillars will eat. The monarch population has been decreasing rapidly in the last several years, so we will redo the landscaping in several areas in order to plant milkweed for the butterflies. These native plants will be a great source of food for butterflies.
 - We will be applying to become a Tree Campus USA within the year. We are working with faculty members to create a service learning project this fall. After the event is completed, we are able to submit the application. By becoming a

Tree Campus USA, Edgewood College is committing to caring for its trees. One goal of becoming a Tree Campus USA is to develop a tree inventory. Not only will the inventory provide the location, genus and species, and size, it will also allow us to record all care provided to a specific tree. (I've previously given you data on the Tree Campus USA standards and goals- let me know if you need this or more information)

- We are removing the two large oak trees for the Regina expansion. These trees stay on campus in some form. We are requesting Bassett leave the woodchips produced from the debris so we are able to use the woodchips to mulch the woodland trails. The smaller limbs we will cut to use for campus bonfires. The large trunks will be milled to use in the new addition. Could this be considered a goal? Perhaps to say we would be repurposing a removed tree, instead of the tree only being chipped to turn into compost or landfill. We are being sustainable in using the local resource we have, instead of purchasing new. This could possibly be a goal for 2016, since the Regina addition won't be done this year.

f. Transportation

Performance data in this section is provided for the academic year (August-May) rather than calendar year for our recording keeping ease.

Madison Metro Bus Program

Edgewood College provides free Madison Metro bus passes for all students, faculty, and staff. Ridership in this program saw a significant increase this year even with the continued implementation of our policy requiring an Edgewood ID to receive a bus pass.

User Participation Record – 2014-2015 Academic Year

	Fall	Spring	Total
2006-2007	841	574	1415
2007-2008	918	750	1668
2008-2009	1252	751	2003
2009-2010	1319	749	2068
2010-2011	1289	859	2148
2011-2012	1202	971	2173
2012-2013	1195	928	2123
2013-2014	1147	910	2057
2014-2015	1305	913	2218

Commuter Shuttle Program

Edgewood College offers a FREE shuttle program for students, faculty and staff as an alternative to parking on campus. Participants park at either AMC Star Cinema on McKee Road or Westwood Christian Church on Odana Road. The program has been designed to reduce the stress associated with parking and commuting to campus. It also gives members of the community a way to save money and help the environment. Users of the shuttle program have reported cost savings of close to \$500.

User Participation Record – 2014-2015 Academic Year

	Totals
2007-2008	84
2008-2009	149
2009-2010	125
2010-2011	143
2011-2012	150
2012-2013	167
2013-2014	122
2014-2015	130

Commuter Biking Program

Faculty and staff who bike to campus are encouraged to participate in the College's registered biking program. Participants are issued a swipe card for the Saris HUB system which allows them to track their trips, mileage, CO2 saved, and gas money saved.

Two additional bike racks were purchased from Saris and placed on campus in November of 2014 to accommodate an increased number of bicycles on campus.

g. Dining Services

Edgewood College Dining Services is committed to environmental stewardship and sustainability. Since the main dining hall (Phil's) was remodeled in 2007, a renewed energy has pushed Dining Services to embrace our obligation to the environment on behalf of the Edgewood College Community. As a part of our commitment, Phil's is proud to be the first college dining facility in the state of Wisconsin to be a Certified Green Restaurant®.

Dining Services continues to implement local product sourcing into our programs when possible. Dining Services is also very conscious of waste reduction. We continue to donate any food that cannot be utilized on our production to a local charitable organization that is then distributed to those in need twice a week. Dining Services also continues to compost pre-consumer waste on campus with the compost being utilized in the kitchen garden and hoop house. We continue to partner with our Facilities Department to look for a commercial composting facility in the area that will pick up post-consumer waste.

h. Paper Use and Information Technology

Performance data in this section is provided for the academic year (August-May) rather than calendar year for our recording keeping ease.

Paper Use

In 2013, we implemented PaperCut, a paper management system. Key indicators tracked are pages printed and jobs. This information is shared with faculty and staff on a monthly basis. The

information is also conveyed in terms of trees consumed, CO2 produced, and equivalent bulb hours.

	Pages	Jobs	Trees Consumed	CO2 Produced	Equivalent Bulb Hours
2013-2014	3,690,481	453,508	31.76	11,503 kg	724,285
2014-2015	3,536,372 [4.2% reduction]	431,499 [4.9% reduction]	30.37 [1.39 reduction]	11,003 kg [500 kg reduction]	692,764 [31,521 reduction]

For 2014-2015, we achieved reductions in pages, jobs, trees consumed, CO2 produced, and equivalent bulb hours.

Computer Management

In 2014, an effort to reduce the environmental impact and overall power consumption of Edgewood College as well save on energy costs we implemented a new computer power management system. This system powers off machines while they are not being used during off hours. The power management system allows for flexibility in scheduling allowing us to adjust based on usage reports from the management suite. The policies we implemented include turning computer monitors off after 30 minutes of inactivity and a nightly shutdown based on hours of operation of each location.

i. Sustainability Fund

The Edgewood College Sustainability Fund was established when the College joined the Billion Dollar Green Challenge (<http://greenbillion.org>) which encourages colleges, universities, and other nonprofit institutions to invest a combined total of one billion dollars in self-managed revolving funds that finance energy efficiency improvements. Participating institutions achieve reductions in operating expenses and greenhouse gas emissions, while creating regenerating funds for future projects.

Our green revolving loan fund provides financing for specific projects that reduce the use of natural resources and also save money. The savings generated from a project are used to repay the revolving loan fund and in turn provide funding for future projects.

At the end of 2014, the fund had approximately \$171,000.

In 2014, the Fund's project investments included:

- Investing \$8,752 for Hot Water Heater installation in Sonderegger. Original cost was \$9,555 and Focus on Energy provided \$803 grant. The projected investment payback time was 3 months.

j. Campus Sustainability Plan

The Edgewood College Campus Sustainability Plan was created by the 2012-2014 Campus Sustainability Coordinating Team with input from faculty, staff, students, and other relevant

stakeholders in alignment with our 2006 Environmental Policy and in support of the College's academic, master, and strategic plans. It advances progress toward achieving our vision of Edgewood College as a model for campus sustainability in Wisconsin. The Campus Sustainability Plan is based on the Association for the Advancement of Sustainability in Higher Education's Sustainability Rating and Tracking System (AASHE STARS), and expands on our Green Tier Certification.

CSCT presented the plan to the President's Leadership Team in December 2013 and the plan was approved in January 2014. The plan's specific goals and best practice options in the areas of Education, Operations, and Administration were distributed to the appropriate constituent units for internal planning purposes.

k. Communications

CSCT enhanced communications with the campus community with the assistance of a Communication Studies intern. We secured a Sustainability Bulletin Board in a public area of DeRicci Hall. The intern created a brochure, green tips, and other material for the bulletin board, as well as a sustainability video for a television highlighting college activities. "Monthly Challenge" flyers were sent out through social media, such as Twitter.

A "Social Responsibility in Business" class designed several Dashboard Indicators for electricity, natural gas, water, and transportation use. The Dashboard is displayed on the Sustainability Bulletin Board.

In addition, a CSCT Logo Contest was conducted with a Graphics Design class. Students created 15 different logos. A panel of CSCT judges determined their top four preferences. Faculty, staff, and students participated in an online survey to determine one logo among the four, which is now being used on sustainability communications. The winning logo (see below) appears on this report's first and last pages.



IV. EMS AUDIT

An external audit of Edgewood College's June 2014 Green Tier EMS plan was performed by Tim Anderson of Perfect Environmental Performance. Edgewood College received an EMS letter of conformance. The letter notes that: "The results of the EMS audit indicate that the Edgewood College environmental management system (EMS) conforms to the ISO 14001:2004 functional equivalency requirements and the specific additional requirements of the Green Tier program found in ss.299.83. "Continual improvement" and the active "preventive and corrective process" were demonstrated by the changes established in the EMS. The findings also

confirmed that Edgewood College is operating the EMS in a manner that results in “superior environmental performance” as defined by the Green Tier Program (ss. 299.83).

The audit findings did note one “minor” non-conformance. The internal auditing procedure was found to be in “non-conformance” (NC) with the requirements because an internal audit had not been conducted in 2011-2013. The Edgewood College Internal audit procedure was redesigned because the internal audit process had been lost in the transition between Environmental Health and Safety (EHS) Managers. The root cause of the non-conformance was that the former (2009) procedure depended solely upon the EHS Manager to initiate and complete the audit.

The new internal auditing process has been designed to incorporate other competent audit team members, to be initiated with the involvement of the Sustainability Committee and to be reported to a member of management familiar with auditing processes. These features improved the reliability of any potential transition in the future. The redesigned audit procedure has yet to be tested in an actual audit event.

As a result of the audit, seventeen EMS procedures were submitted to our Chief Financial Officer, along with an Aspect and Impact chart.

An internal audit of the EMS will be conducted during 2015 and the CSCT will review the audit and make recommendations for improvement based on the results.

V. STAKEHOLDER INVOLVEMENT

One of the four goals of Edgewood College’s Environmental Policy is to develop courses that integrate environmental issues, enrich the learning experiences of students, provide practical solutions to work-life and home-life situations, and maintain a leadership role as a community resource that exemplifies environmental management excellence. Edgewood College has implemented the following to move this goal forward.

a. Undergraduate Studies

A new general education curriculum was launched in the fall of 2010. As part of this new curriculum, all Edgewood undergraduate students must accrue certain “experiences” by successfully completing a number of “tagged” courses that fall into certain categories, one of which is “Perspectives on the World.” Students must take at least one course with an “E” tag, which has been approved as meeting the criteria for the Environmental Perspectives experience. The following describes the goals that have been established for the Environmental Perspectives experience (for “E” tagged courses):

Human society is completely dependent on the Earth's ecological systems, but these systems are increasingly stressed by human activity. Knowledge of environmental issues enables students to recognize and respect the complex natural systems upon which contemporary society is built. This knowledge cultivates a sense of responsibility for addressing the short and long term consequences of human activity and provides the necessary framework for seeking solutions to ecological problems. Specifically, each student will be able to:

1. Recognize the interdependence of human society and the natural environment and the ways in which principles of ecological sustainability are essential to building a just and compassionate world.
2. Demonstrate how concepts of ecology are central to many areas of study.
3. Identify the ecological consequences of human activity on the Earth and envision fundamental solutions that work toward long-term sustainability.

More than thirty courses have been approved for the “E” tag.

In addition, an Environmental Studies Minor (<http://envirostudies.edgewood.edu/>) allows students to pursue a broad, interdisciplinary view of environmental issues. The Environmental Studies program offers a minor that complements any of the majors on campus. Students in the program combine coursework from departments across the curriculum with involvement in the local and global community to gain a broad interdisciplinary perspective on environmental issues and the experience necessary to work toward a sustainable future. The minor prepares students for meaningful, collaborative work in areas such as environmental education, research, consulting, policy, writing, or activism. An individualized major in Environmental Studies is also available. Students who wish to pursue a minor or major in Environmental Studies should contact the director of the program. The interdisciplinary Environmental Studies minor has three components: interdisciplinary coursework, service activities, and an integrative capstone experience.

b. Graduate Studies

The Sustainability Leadership Graduate Program (<http://www.edgewood.edu/academics/graduate/sustainability>) offers a graduate level certificate to students and fellows who apply course concepts to address real-world ecological and social issues in their organizations or communities. Representative student capstone projects include working with an indigenous community in Arequipa, Peru, to help build capacity and resilience, building a program that encourages bicycling among girls, creating a sustainability school, and leading a strategic sustainability plan for an assisted living center.

The Sustainability Leadership Graduate Program hosted the Green Building Alliance for a tour of the Stream, our new LEED-Gold certified building.

c. Wood’s Edge and 2014 Earth Week Activities

Wood’s Edge is a student organization with goals to provide opportunities for social outdoor activities (e.g. camping, hiking, canoeing, and skiing) and to get involved in environmental issues at a local, state, national, or global level.

One of Wood’s Edge major activities is helping to manage Edgewood’s annual Earth Week activities associated with the Earth Day holiday. The 2014 Earth Week program included:

- TREK bike tune-ups
- Professor Steve Davis: Penokee Hills mining presentation
- Table Fair in Wingra commons – bag drive, CSCT table, BIO 250 projects
- Invasive Species Pull
- *The Price of Sand* film
- Nature Walk Boardwalk

- Mazzuchelli Hall Roof Opening
- Professor Francie Rowe: Central Sands ground water presentation
- *Queen of the Sun* film
- Greens Food and Plant Sale

d. Staff & Faculty Education

- Participation in creation of Campus Sustainability Plan
- Staff and Faculty inclusion on Campus Sustainability Coordinating Team
- Distribution of CSCT monthly meeting minutes

e. Neighborhood Involvement

- The Community Boardwalk along Lake Wingra is available to the public as well campus community. A community/family nature walk on the boardwalk was hosted by Wood's Edge students during Earth Week.
- The college partners with Friends of Lake Wingra and the Park and Pleasure Drive Association to manage and enhance the lakefront property.

VI. DNR RELATIONSHIP

Edgewood College works closely with its DNR Green Tier representative. Professors Denis Collins and James Lorman have both served on the Green Tier Advisory Committee.

VII. CONCLUDING COMMENTS

Edgewood College has strengthened our EMS in conjunction with our sustainability strategy to continue to produce superior environmental performance. As illustrated in this year's report, there were several innovative and exciting projects completed campus-wide. We look forward to our continued evolution as an environmental leader in higher education.

