**How to Motivate Environmental Change on Campus:**
**A Case Study at Edgewood College"**

HANDOUTS AT
**http://business.edgewood.edu/dcollins/presentations.htm, click on "Greening EC Handouts"**

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**SOME EDGEWOOD COLLEGE ECO-ACCOMPLISHMENTS**
http://dnr.wi.gov/org/caer/cea/environmental/participants/edgewood/

Note: The 10 hottest years in recorded history all occurred during the past 12 years

**In October 2006, Edgewood College became the first college or university in Wisconsin to be accepted into the Department of Natural Resources' Green Tier program**, a statewide program that encourages institutions and businesses to go beyond current rules and regulations to reduce their impact on the environment.

Recent environmental accomplishments at Edgewood include:

- Environmental Management System
- Environmental Management Policy
- Annual Environmental Audit
- Annual Environmental Indicator Report
- New Residence Hall LEED (Leadership in Energy and Environmental Design) Certified
- Construction of a Community Boardwalk to help manage the Lake Wingra marsh
- Mazzuchelli renovation awarded *2005 Environmental Excellence Award*
- Rain gardens designed to capture large volumes of runoff from the campus
- Annual Eco-Olympics

**Energy Conservation in Dominican Hall**

- High-efficiency natural gas boiler for space heating
- Fiberglass/foam wall insulation & low-emissivity windows
- High efficiency light fixtures & appliances
- Motion sensors for lighting
- Day lighting with windows in over 95% of the building occupied spaces
- Low-flow showerheads and toilet fixtures which reduce building water consumption by over 40%
- Construction-site waste recycling; over 90% of the building construction waste was recycled
- Preservation of heritage trees
- Rain gardens, filtration of storm water and reduction of storm water run off
- Laundry dries use direct source outside air for drying to reduce air demand
- High-efficiency natural gas water hearting by solar preheating

**ENVIRONMENTAL INDICATOR REPORT: 2007**

**February 2008**

This report provides data from 2007, in comparison to 2006, for the primary environmental indicators determined in our Environmental Management System (EMS). The major indicator categories are:

- #1: Hazardous Waste and Waste Minimization
- #2: Energy Use
- #3: Solid Waste Material and Recycling
- #4: Water Use

Specific baseline data for 2007 was gathered in early 2008. This data will serve to develop goals and improvement strategies for continuous improvement.

## INDICATOR REPORT SUMMARY

| Indicator | Topic | 2006 | 2007 |
|---|---|---|---|
| ***#1: Hazardous Waste and Waste Minimization*** | Net RCRA (hazardous) waste generated (lbs) | 636 lbs | |
| | Pesticides and herbicides (applications) | One lawn application<br><br>? pond applications | |
| | Salt use (lbs) | 40,000 lbs of NaCl used by EC<br><br>??? lbs used by Contractor | |
| ***#2: Energy Use*** | Gas (therms/sq. ft.) | 0.5628 therms | |
| | Electricity (kWh/sq. ft.) | 11.6395 kWh | |
| | Wind & Solar (kWh) | 1.9% | |
| ***#3: Solid Waste Materials and Recycling*** | Recycled material (paper, glass, metal, plastic) (cubic yards per year) | 3,328 cy | |
| | Solid waste to waste disposal facility (cubic yards) | 5,616 cy | |
| | Percent Recycled (Recycled/Total Waste) | 37% | |
| ***#4: Water Use*** | Total potable water and sewer (cubic feet) | 10136 cf | |
| | Irrigation water (cubic feet) | 1618 cf | |
| | Total Water | 11754 cf | |

# Creating a Green Student Organization

- Advertise!
  - Spread the word that there is interest in a Green student organization on campus.

- Motivate Students!
  - A great way to get students motivated is to have a motivated faculty.

- Bring in issues that are important to them
  - Students will be more willing to get involved if the issue speaks to them personally

- Service Projects
  - Get the students outside and involved in the community

- Other Student Organizations
  - Get other campus student orgs involved and if possible, collaborate with nearby campuses.

- Have fun!

"Wood's Edge," Edgewood College's Environmental Studies Group

# Applying for an Environmental Grant

1. Use your connections: find out whether anyone at your school has ties to foundations or other grant making entities. For example, who is on your Board of Trustees? What alumni do you know that are on Boards or panels of Foundations you are thinking of approaching? ***Make sure you clear any solicitation with your Director of Advancement*** (called donor prospect management)**!** For example, it would backfire to approach a corporate foundation for $5000 for a rain garden, when they're actually being cultivated to donate $5 million to a capital campaign for a new building!

2. Do your research: There are websites where you can input qualifiers and sort for type of grant, for example, environmental education. Funders usually specify what types of giving they are interested in. Read their mission statements and list of previously funded projects. Some will take proposals outside their area, but it's usually a long shot. Concentrate on the ones that fit your project the best.

3. Think creatively: for example, our college wouldn't have qualified to receive money from the local Community Foundation, as we are a private institution. However, since we promised to open our environmental area to the community and invited field trips from the school district, we became eligible for funding.

4. Find out timelines: once you have a short list of possibilities, you need to find out what the timelines are. If there is a letter of intent process, find out when those are due, and send those out explaining what your project entails. Keep this short and to the point, but as compelling as possible. Appeal to their sense of urgency, aesthetics, or however you can best convey how meaningful the project will be to all beneficiaries and how it fits their mission.

5. Write well: the narrative should describe the project in detail and tailor it as much as possible to the grantor's giving philosophy. Pay attention to whether they have an "Outcomes" section in the application – how you intend to measure the impact the project has on its intended beneficiaries. The only way to do that is to state the objectives clearly with a baseline to measure from. When you are able to document and prove to the funder that you fulfilled your objectives, you are more likely to receive funding from that source in the future. You don't want to burn any bridges – you never know when something will be useful!

6. Show a healthy amount of matching funds: these can come from two sources; "in-kind" donations of labor, materials, tools, etc., and cash from other funders. Don't ask for more money than the total project budget, in the rare event that you get every request granted. Some projects can be planned in phases, so that if you don't get all the funds you ask for the first cycle, you can complete a portion of it and then leverage that for more, with your track record of success.

7. Publicity is great: if you are doing a groundbreaking, a dedication, an opening ceremony or whatever: broadcast it to all media, giving the funder's name prominence in the press release. ***Don't forget to invite them and ask them to say a few words!*** Also, photos of the project are worth a thousand words to the funder. Take lots of "in-process" pictures and send them a representation of the best ones.

# Eco-Olympics Class Instructions

**Human Issues Project Report – Making a Difference:** One objective of the Human Issues Study program is to apply interdisciplinary knowledge to a unique project that has social benefits and take action. The human issues project goals are to: (1) sensitive future business and community leaders about community issues, (2) apply your knowledge and skills to address a specific community issue, and (3) experience how various stakeholders can work together on a community issue.

In October 2006, Edgewood College became the first college or university to receive "Green Tier" certification by the Wisconsin Department of Natural Resources. We will focus on making a few small changes to help the college continually improve its environmental performance. Teams will be created to enhance the ecological well-being of the Edgewood College campus by managing our annual "Eco-Olympics." Duke University created the Eco-Olympics friendly competition concept and many colleges and universities have adopted it (www.duke.edu/web/env_alliance/games/). You are likely to be on teams and committees your entire adult life so it is worth learning hands-on how to appropriately manage being on a team.

Several teams will help a residence hall (Stevie, Regina, Marshall, Weber, Siena, Dominican) compete in the Olympics. One team will conduct a neighborhood survey about boardwalk use.

To be successful, you will need contacts within each residence hall, such as Resident Assistants or friends and students you know who live there. One of the reasons we have not solved our environmental problems as a nation is because most people are too busy to pay attention to them or to do something about them. Your challenge is to figure out how to motivate students who are taking too many credit hours of courses and working too many job hours, to improve their environmental performance.

Your team should "cascade" your message to your assigned residence hall, offering it several different times in several different formats. Think about advertising – why do companies show many advertisements on the same television show or newspaper? Usually because the anticipated receiver of the message is not paying attention the first time the ad is shown. Or, some people pay attention to one type of advertisement but not another type of advertisement. Thus multiple outreach methods are needed to get the message across, particularly when the audience is busy college students!

Work on this paper incrementally during the semester. You will develop an Action Plan and Lewin Force-Field Analysis at the beginning of the project, and must maintain a task activity log after every meeting. Any posters or flyers you hang up must be approved by the Dean of Students Office in 215 Predolin. Please take down all posters or flyers when the Olympics ends.

**The general format of the paper appears later in the syllabus.** The paper should be **single-spaced, though double-spaced between paragraphs, with one inch margins and 12 point font size**, stapled without any folder, binders or covers. Don't just piece together sections written by different people. Instead, make sure the paper has a consistent voice and style, and the information is not repetitive. The report format, a rubric for evaluating team performance, and a rubric for evaluating individual performance on the team project, appear later in the syllabus. The Human Issues Project Report is worth **120 points (12% of your grade).**

I have set-aside **7** class sessions for you to work with your team on the project during class time to minimize the problem of arranging your busy schedules to meet as a team. All group members must show up on time for these "working sessions." Make optimal use of the class time by having an agenda and working on the project. Make sure each team member adds value to the project. Many students have a bad habit of waiting until the last minute to perform essential tasks, and then things go wrong. **Set deadlines and don't procrastinate.** Learn to budget time for things to go wrong and be focused! Each of the scheduled team meetings are worth **10 points each** based on the rubric that appears later in the syllabus, for a **total of 70 points (7% of your grade).**

# Eco-Olympics Project Paper Format

1) **Cover Page:** Creative title, authors, date, class name, professor's name

2) **Table of Contents** – List major subheadings and page numbers in report

3) **Executive Summary** – Summarize the information contained in this report. This is not an introduction to the paper. Instead, it should clearly and concisely summarize the details regarding who, what, when, where, and why, along with what was accomplished, and information demonstrating that the goal was achieved (or not achieved). Don't say that you faced obstacles or spoke with people, tell the reader who you spoke with, what major obstacle you had to deal with, and how you dealt with it. Avoid jargon and vague generalities. This may be the only page an executive might read, so if key information is omitted then the executive will not know what you did or accomplished. [Never more than 1 page, and never put anything else on this page]

4) **Environmental Issue:** What issue did the team address? Why? [1 paragraph]

5) **Action Plan:** Describe your initial plan to accomplish your goals that you created in class as a team. Who was going to do what, when, where, and why? Create a "Project Management" table as shown below, listing the tasks that need to be completed and dates the tasks will be completed, arranged in chronological order. Cut and paste the table below into your report, insert additional rows as needed, and fill in the information. **Do not change** these dates as the project evolves. This table documents your initial expectations for reflection later in this paper.

| **Initial Action Plan Schedule** | |
|---|---|
| **Deadline Date** | **Task** |
| 2/22/07 | Create first draft of Initial Action Plan Schedule |
| | |
| 4/22/07 | Submit paper and present in class. |

Then create a Lewin Force-Field Analysis organizational change chart as shown below. First, list the forces against change (given your initial plan, these are your obstacles you expected to have to deal with, the things you thought might go wrong). Then for each obstacle, describe how your group initially planned to overcome the obstacle. Cut and paste the table below into your report, insert additional rows as needed, and fill in the information. [1-2 pages]

| **CURRENT STATE: (Problem)**<br>Students insensitive to environmental issues | | **FUTURE STATE: (Goal)**<br>Students become good environmental agents |
|---|---|---|
| **(2) Forces For Change** | **(1) Forces Against Change** | |
| Overcome #1 by … | Obstacle #1: Students are apathetic | |
| Overcome obstacle #2 by … | Obstacle #2: (etc.) | |

6) **Implementation Experience and Results:** What was your experience implementing your plan. Who did what, when, where, and why? What unanticipated obstacles happened and what did you do about them? Tell stories about what actually happened. Look over your "Initial Action Plan Schedule" and discuss which deadlines and tasks were unrealistic and explain why they needed to be changed. What results did you accomplish? Provide actual data when appropriate. [1-2 pages]

7) **Newspaper Article:** Compose a 200 word newspaper article about your human issues project that the Edgewood College Public Relations office can send to your hometown newspaper (that's about 5 short 3-sentence paragraphs). As a team, develop paragraphs 2 through 5 paragraphs summarizing, who, what, when, where, why, and outcome. Each team member must then compose a unique and catchy 2 to 3 sentence introductory paragraph that mentions your name, high school graduated from, and hometown. Our Public Relations office will then send these articles to your hometown newspaper for publication consideration. [1 page per team member]

8) **Appendix A – Task Activity Time Log:** Dated diary documenting what each team member did on each work day using the table below. End with summary of how much time each team member put into the project.

| **Date** | **Task Activity** (short one sentence description stating who did what on which date; longer detailed activity explanations should appear in text under action plan or implementation experience) | **Person (People) Doing Task** | **Amount of time to do task** |
|---|---|---|---|
| 1/1/08 | Developed Action Plan and Lewin Chart | Kim, Chris | 75 minutes each |
| 1/8/08 | Created flyers and internet research | Kim, Chris | 75 minutes each |
| | | | |
| **End of Project Summary of Amount of Time Per Student:** | | **Kim** | 11 hours, 30 minutes |
| | | **Chris** | 12 hours, 15 minutes |

9) **Appendix B – Lessons Learned:** Summary of each person's primary lessons learned as a result of doing this team project, including lessons learned about project management and yourself. What would you do differently if you had to start this project again? [1 page per team member]

10) **Appendix C – Other Information:** Any other relevant information associated with the project, such as a copy of survey or flyer. Explain why the information is relevant.

# MBA Natural Step Environmental Change Instructions

**Environmental Change Report – Making a Difference:** This report applies concepts learned in class about organizational behavior to your own organization. It provides you with an opportunity to provide immediate "value added" to your company as a result of taking this class. You can change an organization from any position within it if you think strategically, begin with a low hanging fruit, determine the financial benefits of the change through cost-benefit analysis, emphasize that the change is a pilot project, and partner with the right people.

During previous semesters, students have learned a great deal about company operations met new people in their organizations with common interests, and increased their exposure to managers and change agents. Occasionally, students have been told "we should have done this 5 years ago," and people are grateful someone is now taking the lead on this issue. Organizational leaders typically like to hear that you are thinking about how to save the company energy costs in the long-term and doing something good for the environment [in that order]. The paper should accomplish something that should have already been accomplished (i.e., appropriate recycling, computerize documents), but nobody has had the time or energy to focus on the issue until now.

Submit a **7- to 11-page, single-spaced, word-processed paper** that critically assesses an organization, ideally your current employer, in terms of The Natural Step Framework and your experience initiating an environmental improvement. You will recommend a specific change and engage the key "change agent" to make progress on the issue. **Double-space between paragraphs, similar to this syllabus**. Some of this analysis will be developed as homework assignments. The report format and rubric for evaluating the report appear later in the syllabus. The report is worth **310 points (31% of your grade)**.

**NOTE:** I have chosen an environmental change because, in the spirit of continuous improvement, all organizations need to improve their environmental performance. Environmental analysis takes you into the inner operations of the organization and is on the agenda of many managers, but not at the top of the list of things to do. **HOWEVER,** if focusing on an environmental change does not make sense for your unique situation, then **speak with the professor and offer a different type "change"** to initiate, experience, and write about.

# MBA Environmental Change Paper Format

1) **Cover Page**: Creative title, name of organization, authors, date, class name, professor's name.

2) **Table of Contents** – List major subheadings and page numbers in report

3) **Executive Summary** – Summarize all the key information contained in this report on one page; be clear and inclusive, and don't be preachy. This IS NOT an introduction to the paper and it may be the only page a busy executive reads. The Executive Summary must mention the strengths uncovered by the environmental audit, opportunities for improvement, strategies you considered, which area you chose to focus on and why, cost/benefit analysis, anticipated implementation obstacles, change experience, and the outcome of your efforts. [1 page – and do not exceed 1 page]

4) **Organization and/or Work Unit Information** – Describe the nature of your business/work, location, product/service, annual revenue, number of employees, etc. [1 paragraph]

5) **The Natural Step Environmental Audit** – Evaluate your organization's environmental performance using the first three Natural Step objectives: (1) reduce wasteful dependence on fossil fuels, underground metals, and minerals, (2) reduce wasteful dependence on chemicals and unnatural substances, and (3) reduce encroachment on nature, particularly regarding energy use, water use, air, material resources, food, land, transportation, and building dynamics. Complete the chart below and then, in paragraph form, discuss your satisfaction or dissatisfaction with each step. If possible, collect relevant data. [2 pages]

| | **Environmental Strengths** | **Potential Environmental Improvement Areas** |
|---|---|---|
| Fossil Fuel and Mineral Use Analysis | | |
| Chemical and Unnatural Substance Analysis | | |
| Encroachment on Nature Analysis (land, water, wildlife) | | |

6) **Screening Table** – Develop a Screening Table (p. 141) for three strategies that address an important potential environmental improvement area. Evaluate the strategies using the following three categories: Cost, Effectiveness, Can Accomplish this Semester. Use a 1-5 scale with "5" representing the best value in each category: Low cost, High effectiveness, High likelihood of accomplishing this semester.

Complete the chart below to pick a "low hanging fruit" solution (something relatively easy to change), and explain your decision making process and choice in paragraph format. [1-2 pages]

| SCREENING TABLE | | | | |
|---|---|---|---|---|
| | **Decision Attributes** | | | **Total Score** |
| **Alternatives** | *Low Cost* | *Highly Effective* | *Done in Semester* | |
| Strategy #1 | | | | |
| Strategy #2 | | | | |
| Strategy #3 | | | | |
| **Measures:** 5 = Yes, 3 = Moderate, 1 = No | | | | |

7) **Quantitative Data for Chosen Strategy: Cost/Benefit Analysis** -- To increase the likelihood of success, you should be able to empirically demonstrate to a manager that your strategic solution will either reduce costs (i.e., decrease amount of payments for landfill disposal), increase revenue (i.e., attract new business), or increase employee productivity (i.e., improve morale). Perform a cost/benefit analysis for your chosen strategy that you can give to the manager or change agent. If a cost/benefit analysis is not appropriate, then provide some data relevant to your solution. [1 paragraph to 1 page]

8) **Lewin Force-Field Analysis** – As shown in the diagram below, develop a force-field organizational change chart for your change recommendation. List the forces against change first, and then explain how to overcome that particular change obstacle, including data if needed. Discuss the prioritization of the obstacles; which obstacle is the most problematic and why? [1-2 pages]

| **CURRENT STATE (Environmental Problem):** | | **FUTURE STATE (Environ. Goal):** |
|---|---|---|
| **(2) Force to Overcome the Change Obstacle →** | **← (1) Forces Against Change** | |
| | | |
| | | |

9) **Action Plan** – Given your recommended solution and anticipated obstacles, develop an "Action Plan" for accomplishing the "pilot project" by clearly stating: (1) The **problem** you are correcting (one sentence), (2) the **goal** (one sentence), (3) the **strategy** you will pursue (one or two sentences), and (4) how you will **measure** success (one or two sentences). Refer to your strategic solution as a "pilot project" and keep the parameters reasonable.

10) **Meeting with Change Agent** – Bring two documents to the meeting – (1) your action plan (see #7 above) and (2) your cost benefit analysis (see #9 above). Begin the meeting by praising the change agent and/or organization's environmental accomplishments and educate the change agent about cost savings, revenue generation, or employee morale impacts. The change agent should become your ally, and vice-versa. Exhibit the attitude that you want to make the change agent look good by implementing your recommended change. This is not about you, it is about the change agent and your company.

Discuss the dynamics of your meeting with the organizational change agent responsible for the area involving your change recommendation. Explain [1-2 pages]:

(a) What is the change agent's power base? (pp. 190-192)

(b) Is change agent a blue, green, brown or red personality and how did this impact the communication style you used? (handout)
(c) What social influence tactics did you use to influence the change agent? (pp. 194-196)
(d) How did you try to motivate the change agent – apply Operant Conditioning (pp. 235-239), MBO (pp. 244-245), Expectancy Theory (pp. 250-254), or Equity Theory (pp. 254-259)?
(e) How did you communicate with the change agent – how did you encode and transmit the message? (pp. 60-61)
(f) The context of your meeting with the change agent – where did you meet, what was on the agenda, how did the meeting go? (pp. 112-115)
(g) What was the change agent's response to the data you provided?

11) **Outcome** – What was the result of the meeting? Did the change take place? How much success did you have? What would you do differently to achieve greater success? [1 page]

12) **Change Experience Reflection** – Summary of primary lessons learned as a result of doing this project, including lessons learned about yourself. [1 page]

# How to do a LEED Building

First, get your college administration on board. They may say "But LEED certification will cost too much." Here is where you say "Let's apply for a Kresge study grant, or other funding to do a cost/benefit analysis of the building." They just need to understand that the upfront costs can be made back in reasonably short timeframe. After all, colleges don't build things they don't intend to use in 30, 50, 100 years, right? For example, solar thermal hot water panels pay for themselves in energy savings faster than Photo-Voltaic for electricity. Look at design features that cost the same no matter what, because it's already new construction. The orientation of the structure and other passive solar features are essentially "free" but can produce good energy savings.
Now that you've decided to apply:
Go to http://www.usgbc.org/DisplayPage.aspx?CMSPageID=1497

This process isn't a cakewalk, but since you're working with an architect anyway, they'll fill out the paperwork! Your job is to advocate for the features in the design. There is also a category for retrofitting existing buildings.
Basic requirements are things like runoff prevention and recycling of building waste. Then, points are received for things like:

- Water reduction (20 or 30% - using low-flo showerheads and toilets)
- Water-efficient landscape & stormwater design
- Building materials: recycled content, regional materials, certified wood, rapidly renewing materials.
- Site development, Daylight and views
- Controllability of lighting, thermal systems (motion sensor lights; thermostats computerized, turn down automatically when timed)
- On-site renewable energy: 1 point for 2.5%, 2 pts. For 7.5%, 3 for 12.5% renewable

The accumulation of points fall into the following categories, contingent upon the US Green Building Council's review of the application:

**Certified:** 26-32 points, **Silver:** 33-38 points, **Gold:** 39-51 points, **Platinum:** 52-69 points

In the case study at Edgewood, the new residence hall was constructed with the goal of Basic, but several people were determined and kept pushing for more. Once construction was done, we found out we were 1 credit shy of ***Silver*** LEED status. We had heard that folks in California "look down their noses at Basic", so that just wouldn't cut it! With a call to the architect, we found out "innovation points" can be earned towards a LEED credit for student education. Creative solutions included but were not limited to:

- Enlisting a faculty member looking for a service-learning opportunity for her "Persuasion" class. With the Head Groundskeeper, we formed a student team to help earn "innovation points for student education" as part of a "LEED Lifestyle" campaign.
- Challenge created leverage to engage the students to increase buy-in, raise awareness of the existing energy-saving design elements, and motivate residents to conserve. Lapel buttons and high-efficiency light bulbs were given out in exchange for signing a pledge to conserve energy.
- Signage to point out energy-efficient features for visitors and potential residents to see on tours.

**Wisconsin Department of Natural Resources – Green Tier Program**

http://greentier.wi.gov/

- Provides responsible companies the flexibility to exceed environmental requirements while boosting productivity and cutting costs.
- Initiated October 2005;
- Participants as of 5/1/06 – MEGTEC Systems, American Transmission Co. (ATC), Holsum Dairies, Times Printing, Kimberly Clark; pilot projects with MG&E and WE Energies; support from two trade associations
- Edgewood College, certified October 2006, first college or university in Wisconsin given this designation.

**Benefits of Green Tier Status:**

- Recognition for superior environmental performance
- Single point contact at DNR
- Use of Green Tier logo
- Opportunity to be a pioneer in regulatory reform
- Permit streamlining, modified monitoring requirements, potential facility caps
- Deferred civil enforcement
- Differentiate Edgewood College from its competitors in attracting the type of students, faculty and business contacts that fit our college's mission.

**Our Obligations:**

- Implement an Environmental Management System plan (EMS) certified to the ISO 14001 standard
- Conduct annual EMS audit
- Submit to DNR an annual report on each EMS audit that is in compliance with state law [s. 299.83(6m)(a)]
- Submit to DNR an annual report on progress towards meeting objectives related to improved environmental performance.

Edgewood College DNR Green Tier website:
http://dnr.wi.gov/org/caer/cea/environmental/participants/edgewood/index.htm

# Environmental Management System (EMS) Plan Sections

Environmental Policy

- ***Commitment to compliance with environmental requirement, pollution prevention, and continual improvement in environmental performance***

Environmental Planning

- ***Analyze environmental aspects and impacts***
- ***Identify all environmental requirements and develop plans and procedures to achieve***
- ***Process to set environmental objectives and develop appropriate action plans to meet the objectives***

Environmental Implementation and Operation

- ***Structure for operational control and responsibility for environmental performance***
- ***Employee training and communication systems***

Environmental Checking and Corrective Action

- ***Procedures for control of documents and for keeping records related to environmental performance***
- ***Conduct annual environmental management system audit***

Management Review

- ***Senior management review of EMS plan for continually improving environmental performance***

# Annual Environmental Indicator Report and EMS Audit Timeline

**Date: Activity**

February: Begin gathering information for Environmental Indicator Report

April: Environmental Indicator Report Completed

September: Review Environmental Indicator Report with Environmental Studies Council and establish goals and strategies

October: Review Indicator Report and Goals & Strategies with College's Executive Team

December: EMS Audit Conducted

January 31: Annual Report submitted to DNR

# City of Madison's "Mpowering Program"

In 2007, Mayor Dave Cieslewicz, joined by community leaders, set a goal for reducing greenhouse gas emissions in the Madison area. Under this cooperative private-public-not-for-profit campaign, the City of Madison and its initial partners – Madison Gas and Electric (MGE), University of Wisconsin, Nelson Institute for Environmental Studies, Dane County United, Citizens Utility Board, RENEW Wisconsin, Clean Wisconsin, Sierra Club, Madison Area Clean Energy Coalition, and Sustain Dane – will seek to reduce citywide emissions of carbon dioxide (CO2) by 100,000 tons by 2011 (http://www.mpoweringmadison.com)

The Mayor and partners listed above are now seeking other businesses to become partners by taking the Mpowering Pledge. To qualify as an Mpowered Business Partner, Edgewood College would pledge to reduce its carbon footprint by a minimum of 10% from our current level by achieving 3 of the 6 actions in the chart below. The chart also summarizes our current efforts and opportunities for improvement. The general consensus is that it will be relatively easy for Edgewood College to fulfill this pledge.

| **Rating: easy-hard** | **6 Actions (3 need to be achieved)** | **Current Efforts** | **Opportunities** |
|---|---|---|---|
| **1 – Very easy to do** | **Buy Renewable Energy.** Sign up to purchase green power at mge.com. | Have bought some wind power – total wind and solar purchased are 1.9 % | Will increase amount of wind power purchased to 5% by 2008 |
| **1 – Very easy to do** | **Improve Energy Efficiency by 10%.** For more information, go to www.mge.com/business or www.focusonenergy.com | Dominican Hall to be LEED (Leadership in Energy and Environmental Design) certified; many efficiency features; natural light, residents signed pledges to start a "LEED Lifestyle" campaign<br>~Regina – new windows, new boilers with controls<br>~DeRicci – lighting upgrades<br>~Mazzuchelli – built with green approach<br>~Science Building – fume hoods and new fluorescent lighting<br>~New hi-efficiency lighting in EdgeDome (motion sensor lights and hi-efficiency lighting in average of 75% of buildings)<br>~Most appliances are currently *Energy Star* | Will continue to install energy saving features as upgrades and remodeling occur |
| **1 -** | **Reduce Car Travel.** | Free bus passes for all students, | Bring Community Car to |

| | | | |
|---|---|---|---|
| **Easy to do** | Sign up for Madison's unlimited ride bus pass program for your employees, start car pool programs, and ride bikes to work. | staff and faculty<br><br>Bike repair and share program<br><br>Shuttle for employees | campus for employees and students to share<br><br>Incentives for bikes, walkers and bus riders<br><br>Increase shuttle ridership & carpools |
| **1 - Easy to do** | **Reduce Water Use.** | Rain gardens at Mazzuchelli and Dominican<br><br>Native plantings that don't require as much watering to flourish<br><br>Lo-flo showerheads in Dominican; Lo-flush toilets in Dominican and some other buildings | Install water-saving devices in other buildings as feasible; more native plantings that don't require watering |
| **2 - Harder to do** | **Install renewable Energy.** For more information, go to www.focusonenergy.com or call 1-800-762-7077 | Dominican Hall – Solar Panels for hot water | Install more solar hot water as it becomes feasible |
| **3 – Very difficult to do** | **Employee Pledges.** Sign up 25% of your employees to take the Mpower Pledge for individuals. | We could try this but it would be time-intensive and may not bring as good results as some of the other initiatives | Can still encourage it but not promise to make the 25% goal |

Other benefits of joining:

1. Free publicity
   - ❖ Our name will be on MPowering website with other partners and businesses
   - ❖ MPowering will post updates on website on progress toward goals and creative actions
2. Relatively few other businesses have signed the pledge: Edgewood will be perceived as an environmental leader and have more visibility the sooner we do this.
3. We will be eligible to host a "Meet the M" event using the huge green foam "M" that has been featured in its own TV advertising campaign. Examples of recent events include:
   - ❖ Book signing by John Ikerd at UW-Madison
   - ❖ "Focus the Nation" at Madison Area Technical College
   - ❖ Paradise Lost Art Exhibit at Olbrich Gardens
   - ❖ Madison Winter Fest at Capitol

# A Proposal for a Sustainability Tour

Plan:
Enlist students, particularly those already committed to the LEED Lifestyle project at Dominican, to create a mini-version of the city's "Solar Mile" tour. Our sister city Freiburg in Germany has a comprehensive tour book which Madison's would be modeled after, and Edgewood would be included as a tour stop.

Potential Features of Tour:

1. Starting at Dominican Hall, college students (perhaps doing cross-age mentoring of the K-12 Edgewood students) could lead students from area schools, other colleges, community groups and individuals through the new LEED residence hall as service-learning projects and showcase all the examples of our work in sustainability. Prominent signage would point out all the energy-saving features.

2. A planned community garden with the Campus School.

3. The panther mound, which points to a sacred spring that symbolizes the spirit of the underworld.

4. Then the tour would go through the woodland area, past the trout-spring and the Boardwalk (again, signage detailing the various components of the ecosystem).

5. This would then segue to the Bear Mound, then eventually leading to the future art studio or performing arts center which will hopefully also be Green-built, and then to the Bird Mound in the Native Prairie. Various tree species could be pointed out along the way.

A challenge could be made to the Edgewood community to lower our carbon footprint.

- An art class could create a huge footprint shape in the turf somewhere, and then visibly fill that in with flowers or other native plant species, as we reach the goal.

Since we're documenting everything for Green Tier, we could showcase our work statewide to bring in other colleges that are interested in increasing their commitment to sustainability. An educational exhibit to complement the tour would increase usage.

## Logical Process for Greening the Campus

Step 1: Catalogue the Good Green

Step 2: Share with Green Faculty, Staff & Students

Step 3: Brainstorm & Action Plans

Step 4: Measure Outcomes

Step 5: Connect with city, county and state initiatives

Step 6: Institutionalize Environmental Management System (EMS)

Step 7: Institutionalize 4-Partnerships: Facilities, Faculty, Staff and Students