

Green ROUTES

Draws the Map to a Green Campus

by Kimberly Swick Slover

Just as the nation began to grasp the threat of climate change and the urgent need to alter how we live, students in Colby-Sawyer's Community and Environmental Studies (CES) Program launched a wide-ranging effort to raise environmental awareness across the college. Their goal was ambitious: to move the college community to embrace and act on a vision of a "sustainable" campus that lives within nature's limits.

As part of the CES third-year research project, a group of nine juniors and seniors established Project Green ROUTES (Redirecting Our CampUs Toward Environmental Sustainability) in September 2006. They set out to conduct a Campus Sustainability Assessment and create a plan for the college to become a better steward of the environment while reducing costs in the process.

Since the CES program began in 1999, faculty, students and others have discussed the need to "walk our talk" and make campus operations consistent with the philosophy behind the college's environmental studies curriculum, according to John Callewaert, director of the Institute for Community and Environment and associate professor of social sciences and education.

"We felt this was important for several reasons—to reduce our environmental impact, to realize financial savings for the college, and as a major component of how we present ourselves to prospective students and benefactors," says Professor Callewaert. "With new leadership at the college, it seemed like the perfect time to take on this project."



Green Investments

The Green ROUTES group also explored the college's interest in investing in socially and environmentally conscious companies. Last fall the group joined students in Professor Leon-C. Malan's business class, Organizations and Their Environment (BUS 321), to review the college's investment portfolio. The students found that the college's investments are spread over many different funds which don't hold environmental/social concerns as their highest priority.

The students took four existing funds, or 30 percent of the college's portfolio, and tested the financial impact if invested over four years in "green" and socially conscious funds through Winslow,

Assistant Professor of Natural Sciences Laura Alexander (far left) instructs Green ROUTES students in the identification of invasive plant species. She also worked with the students in determining the level of carbon emissions from the college.

Educating the Community

Institutions of higher learning are inherently well positioned to both teach and practice environmental principles and stewardship, according to Sarah Hammond Creighton, author of "Greening the Ivory Tower." She says students, as the primary customers of educational institutions, can effectively influence their school's approach to environmental issues and advocate for institutional change.

"An Inconvenient Truth"

The Green ROUTES group recognized that to affect positive change, they would need to educate the community about what they can do to address environmental problems. In early fall 2006 the students began by hosting a major event, a showing of "An Inconvenient Truth," followed by a discussion of global climate change. More than 300 people from the college and local communities packed the Curtis L. Ivey Science Center to view the documentary featuring former Vice President Al Gore and to participate in a lively discussion.

Green ROUTES member Stephanie Seavy '07 sees the threat of global climate change as the defining challenge of her generation. She says the event sparked interest in the Green ROUTES project as well as helped people to understand that they must be part of the global solution. "Some people think [climate change] is too big of a problem, but if everyone cares and gets involved, we can make a difference," she maintains.

Calvert and PAX World. The students' conclusion: the college could have earned an additional \$880,000 with green investments.

"The students' recommendation is that the college set aside five to 10 percent of its endowment to be invested in funds with green or clean screens," says Professor Malan. "Their analysis demonstrated that there need not be a cost associated with such a policy; on the contrary, the college might benefit financially."

Sharing Knowledge with the Community

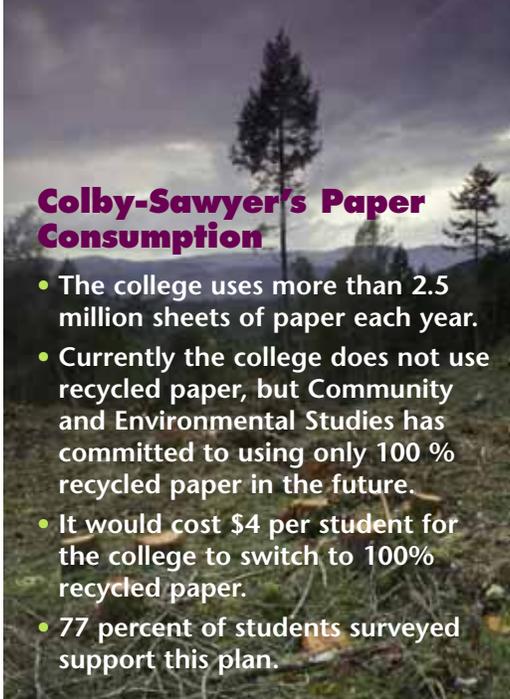
At the end of the fall and spring semesters, the Green ROUTES group held presentations for the campus, inviting the administration, faculty, staff and students to see their progress and engage in discussion. In December, the students presented the initial findings of their Campus Sustainability Assessment, while in May they offered an overview of their project, with numerous recommendations for how the campus can move toward sustainability for the future.

The students also made a final presentation to the college's Board of Trustees during their May meeting. Trustee Dan Wolf found the Green ROUTES presentation "thorough and well done, exciting and captivating."

"It was a real eye-opener about the college's consumption of paper, electricity and water," he says. "It created a new

Colby-Sawyer's Paper Consumption

- The college uses more than 2.5 million sheets of paper each year.
- Currently the college does not use recycled paper, but Community and Environmental Studies has committed to using only 100 % recycled paper in the future.
- It would cost \$4 per student for the college to switch to 100% recycled paper.
- 77 percent of students surveyed support this plan.



awareness for the trustees about what the college can do differently. The entire Board of Trustees was totally engaged and committed to seeing how we can make better use of our resources. It's a wonderful opportunity for Colby-Sawyer to practice what we teach."

The Green ROUTES group also laid the groundwork for future students by offering ideas for incorporating environmental education into Student Orientation. The students suggested an environmental theme be incorporated into the event, and they provided guidelines for students for minimizing their environmental impact and conserving resources in their rooms and on campus.

An Amazing Learning Experience

The Green ROUTES project provided opportunities for the CES students to learn more about their field and working as a team, as well as the often frustrating challenges of bringing about change in a community.

"I definitely have a sense of urgency now that I've learned the seriousness of all the environmental issues that have to be addressed," says Alexa Fitzgerald '08. "People can't stand around and wait for someone else to do it, because no one will."

A native of Alaska who has witnessed the effects of global

Agents of Change

As the lead instructor for the third-year project and related courses, *CES 301/302: Community-Based Research Project I and II*, Professor Callewaert began by having students read "Greening the Ivory Tower: Improving the Environmental Track Record of Universities, Colleges, and other Institutions." The Green ROUTES group also visited Middlebury College (Vt.) and Proctor Academy (Andover,

N.H.) to see examples of how campuses move toward environmental sustainability.

The Green ROUTES group then developed a 30-point work plan, or Campus Sustainability Assessment, for which each student took on leadership roles in several areas of college operations. The students took a hard look at major aspects of college life—energy, purchasing, grounds, equipment, Student Services, Dining Services and Recycling—to find ways to lessen the college's environmental impact or "footprint" and realize cost savings whenever possible.

Under the guidance of Professor of Natural Sciences Ben Steele, several students researched ways to reduce energy and water consumption on campus. "The students read about what had been done on other campuses and came up with their own ideas about what we should do here," says Professor Steele.

Anna Clark, who researched efficient and cost-effective ways to illuminate campus buildings, learned that the college would use much less energy by changing from incandescent to compact fluorescent lighting. She found that in several areas of campus—the Susan Colgate Cleveland Library/Learning Center, the David L.



Green ROUTES members Chris McClellan '08 and Alexa Fitzgerald '08 present their findings on green building design at the mid-project presentation.

warming firsthand, Alexa hopes to work on environmental policy after graduation. “The project really showed me what I want to do in the future. It’s taught me to see and sell my ideas.”

The project taught Anna Clark '07 how difficult it is to affect change across an institution. “It put the spotlight on how hard it will be to have a global impact,” she says. “People believe change is harder than it really is, but we tried to show there’s a real benefit to it.”

Geoff Pushee '08 liked the way the project allowed the group to turn what they learned into something tangible with the potential to benefit the college well into the future. Like most of the other Green ROUTES members, he plans to work in the environmental field, and the project spawned his interest in green building design, which he’d like to combine with his skills in carpentry.

The CES students were extremely committed to the project and excited about the changes they were making, according to Professor Callewaert, yet they were eager to accomplish more, faster.

“It took us awhile to come to the understanding that while a year seems like a long time, it’s really hard to change an institution that quickly,” he says. “We worked to find a balance of things we could do that would make an impact now versus gathering the information and formulating the recommendations that could really change Colby-Sawyer over the next three to 10 years.”



Kristina Stalnaker '08 reads as students participate in an Earth Day Poetry Contest as part of Green ROUTES Sustainability Days in April at the Lethbridge Lodge. The events also featured a recycled art contest, a candle-light dinner in the dining hall to save energy, distribution of compact fluorescent light bulbs on campus, and a contest to see which gender throws away the most food in the dining hall. (It's men, but just barely.)

Colleges Go Green

Colleges and universities have been working on environmental sustainability for the past two to three decades, according to Professor Callewaert, but in recent years, emerging research on global climate change and the rising cost of energy have fueled greater interest and momentum in the movement, particularly among students. “It’s become one of the things that colleges need to be doing to remain competitive,” he maintains.

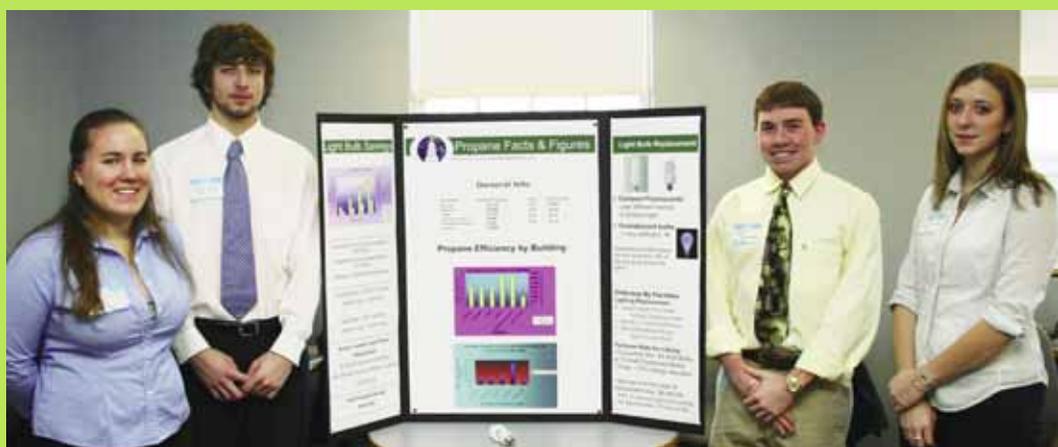
In a comprehensive review of campus sustainability efforts in 2006, the Association for the Advancement of Sustainability

Coffin Field House and the Dan and Kathleen Hogan Center pool—the conversion to fluorescent light was well underway.

“Within the first year (2005), changing the light bulbs in the library resulted in a 75 percent reduction in energy and a cost savings of \$9,360,” Anna says, adding that incandescent bulbs convert about 5 percent of energy into light, while the other 95 percent is lost as heat. “Making it a (campus-wide) policy to have compact fluorescent bulbs,” Anna maintains, “is very important in decreasing the size of our ecological footprint.”

Kris Ramsay found that the college could reduce its water consumption and associated costs dramatically by installing low-flow toilets and urinals. The campus still has 119 high-flow toilets, for which it pays \$28,949 each year, while its water and sewer costs for the 131 low-flow toilets are just \$8, 635.

“If the high flow were replaced by low flow, the school would save roughly 1,280,000 gallons of water, or about \$21,000 per



Green ROUTES member Stephanie Goggin '07 (left) and Anna Clark '07 (right), along with Business Administration students from BUS 321, Trevor Davis '08 (center left) and Chris Catalano '08 present their findings on campus energy use at the mid-project presentation to the college community in December 2006.

year,” Kris estimates. “Colby-Sawyer would not only reduce its environmental impact on campus but throughout New London.”

Stephanie Goggin reviewed the five-year-old recycling program, which covers bottles, paper and cans, as well as a recent initiative to recycle cell phones and batteries. The college should expand its current program, she maintains, by placing small recycling bins



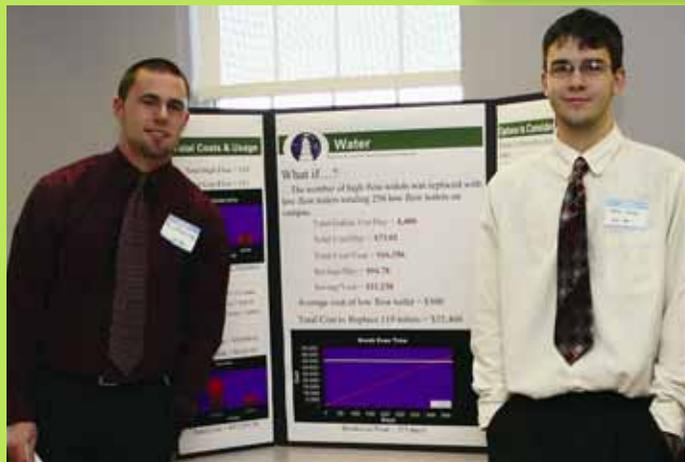
Green ROUTES members on a team-building hike to Lake Solitude in Newbury, N.H. (Left to right) Geoff Pushee, Alexa FitzGerald, Sean Wheeler, Kris Ramsay, Stephanie Goggin, Chris McClellan, Stephanie Seavy, Brian Valle and Anna Clark.

in Higher Education (AASHE) reported an “explosion of activity around sustainability on campuses” across the United States and Canada.

“The incredible variety of sustainability activities underway on campuses is a sign of a healthy movement,” says Tom Kimmerer, the organization’s executive director. “If the first two months of 2007 are any indication, we are heading for another vigorous year.”

in each residence hall room and in campus offices and add more recycling centers across campus.

In their audit of campus technology, Sean Wheeler '08 and Geoff Pushee '08 counted 343 printers used by faculty and staff, with 123 in Colgate Hall



The AASHE was founded in 2006 as a way to promote sustainability in all areas of higher education—from governance and operations to curriculum and outreach—through education, communication, research and professional development.

Colby-Sawyer was one of about 250 colleges and universities in North America to produce a Campus Sustainability Assessment in the last year, according to the National Association of College and University Business Officers. The assessments are a way for institutions to collect data and create a set of benchmarks by which to measure future progress in their movement toward sustainability.

While Colby-Sawyer, through the efforts of Green ROUTES, has just begun to assess its campus operations and plan for a more sustainable future, the college has been making progress on several fronts in the last decade, according to Professor Callewaert. The college switched from fuel oil to propane nearly 10 years ago, which emits fewer greenhouse gases and reduces the risk of leaks in underground storage tanks.

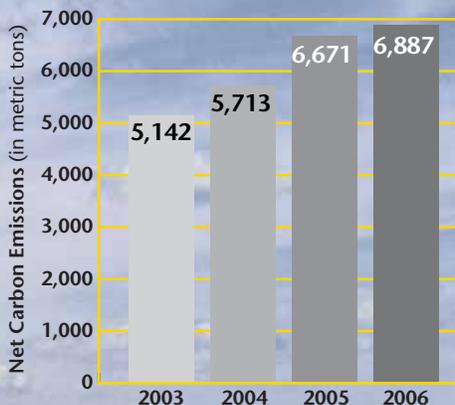
The Campus Facilities Department has also been installing

more efficient lighting, appliances, and windows and doors for several years. For the past five years, the college has followed a recycling program coordinated by staff member Janet St. Laurent.

“While Colby-Sawyer is just getting into the movement toward sustainability,” says Professor Callewaert, “I think we will be able to move fast given our size and culture of cooperation and communication.”

Carbon Emissions from Colby-Sawyer

Students worked to determine and analyze the college’s carbon footprint. The footprint is a measure of the carbon dioxide (CO₂) released by organizations through the combustion of fossil fuels in their daily operations. CO₂ is a greenhouse gas that is linked to global warming.



*Calculated by Chris McClellan '08

alone. They suggest the college begin to replace individual printers with one energy-saving network model for each department and to purchase only 100-percent recycled paper. Recycled paper wouldn’t cost much more, they maintain, and would mean fewer trees felled.

In conducting a campus inventory of plant species, Brian Valle '07 found a proliferation of invasive species. The college should create a long-term plan to eradicate invasive species such as Norway Maple, Purple Loosestrife and Oriental Bittersweet, according to Brian, and replace them with native species across campus. He also suggests the college plant wildflower meadows in some areas of campus to reduce the costs and pressure of lawn maintenance.

To reduce the number of cars on campus and quell the growing need for new parking spaces, Stephanie Seavy recom-

Green ROUTES member and Community and Environmental Studies major Kris Ramsay '08 (left) and Wesley Jordan '09, a Business Administration major, explained their findings on campus water use at their mid-project presentation for the college community at the Ivey Science Center.

The Future is Green

While change tends to happen slowly with individuals and within institutions, the Green ROUTES project has already sparked some action and laid the groundwork for the future “greening” of Colby-Sawyer College.

President Galligan has signed on to the American College and University Presidents Climate Commitment, along with 315 other colleges and universities, a sign of his intention to move the institution toward sustainability. He and senior staff have begun to discuss the feasibility of implementing some of Green ROUTES’ recommendations, such as hiring a campus sustainability coordinator and creating a Green Fund to support the sustainability efforts.

“Green ROUTES has been an incredibly important initiative for the college because it has helped us to both focus on and plan for campus sustainability,” says President Galligan. “By stressing sustainability as a Colby-Sawyer value, we make an important statement both to the college community and beyond. We’re also extremely proud this academic initiative was spearheaded by our Community and Environmental Studies Program as part of its unique third-year project.”

The Green ROUTES students can take pride in instigating some changes, and more importantly, planting seeds for a major cultural shift on campus. Community members across campus are more aware of their environmental impact and considering how to change the way they do business.

mends the college take advantage of Zip Car, a car-sharing program now popular on 18 East Coast campuses. The program allows faculty, staff and students with drivers’ licenses to rent a Zip Car by the hour or the day.

“Like many other colleges, Colby-Sawyer has a limited amount of parking spaces,” says Stephanie. “Due to a lack of public transportation in the area, many students are forced to bring their own vehicles to campus.” By enrolling in the Zip Car program, she believes more students would opt to leave their cars at home.

The students explored many other areas of campus operations and offered recommendations ranging from the composting of food waste; better insulation, windows and doors in some campus



What you can do to Support Green ROUTES

- turn off lights
- convert to fluorescent lighting
- monitor room heating
- conserve water
- share rides when possible
- recycle and generate less waste
- use e-documents and print double-sided
- plant a tree
- be creative
- talk to your friends about Green ROUTES

Several departments have already purchased network printers, and the Community and Environmental Studies Program is the first area committed to using only recycled paper. Incoming students will receive a tip sheet from Green ROUTES on “How to Be Green at CSC” before they arrive on campus. Most importantly, Green ROUTES has given the community a map that can take the college in a more green and healthy direction.

To learn more about Green ROUTES and view their project report and presentations visit: <http://www.colby-sawyer.edu/academic/ces/greenroutes/index.html> ■



(From left to right) Carly Rademaker '07, a CES student with a Business Administration minor, along with Business Administration students Robert Burnett '07, Stephanie Kimball '07 and Patrick Sylvia '07, present their findings on green investments at the Green ROUTES mid-project presentation.

buildings; and environmentally friendly “green” designs for future buildings. The students would also like the college to explore alternative energy sources such as solar and, especially, wind power, a plentiful, renewable resource for a campus that sits on a windy hill.