Dear Students, Alumni, and Friends of CES,

2009-10 has been a busy and exciting year at the Center for Environmental Studies. First and foremost, I am pleased to announce the approval of two new majors in Environmental Policy and Environmental Science, which will complement the seven-course Environmental Studies concentration we have offered for many years. The passage of the majors at the April 2010, faculty meeting represents the culmination of many months of careful deliberation on the part of the CES faculty. It also signals a departure from the College-wide policy that has till now required interdisciplinary programs like ours to choose between offering a major and offering a concentration. We believe that students who are interested in studying environmental issues should be able to do so in conjunction with a traditional disciplinary major or as their primary academic focus.

Both Environmental Policy and Environmental Science are eleven-course majors. They build on the four core requirements of the concentration: Nature and Society, Ecology, Environmental Planning, and the senior seminar. Both require the interdisciplinary Introduction to Environmental Science. To these five, Environmental Policy adds required courses in economics and environmental law, plus a three-course track selected from among Political Economy, Political Theory and Law, and Society and Culture. Environmental Science majors take one additional methods course and a five-course disciplinary track: Environmental Biology, Environmental Chemistry, or Environmental Geosciences.

While the new majors build on CES’s long-standing strengths in science and policy, we are also venturing farther into the brave new world of the environmental humanities. In this regard my own appointment as Director of CES as of July 1, 2009, is of note. As a member of the department of Romance Languages and a specialist in Latin American literature, I am often asked what my academic background has to do with environmental studies. On the one hand, the answer is very simple: my research and teaching explore the relationship between humans and the natural world in Latin American literature. My book, Nature, Neocolonialism and the Spanish-American Regional Writers, examines a traditional genre called the “novela de la tierra” (literally, the “novel of the land”) for clues about how changing economic patterns in the early twentieth century affected people’s relationship to their environment.

On the other hand, the questions of why and how the examination of culture fits into environmental studies also warrant a response. As we celebrated the 40th anniversary of Earth Day last April – and witnessed the beginning of a major environmental disaster in the Gulf – the challenges facing the contemporary environmental movement were overwhelmingly clear.
We can point to material changes in the political process that have made it increasingly difficult to achieve the kind of landmark legislation that came to pass in the early 1970s; we can also contrast the visible blight created by air and water pollution with the largely delayed effects of climate change. But we also need to take a serious and sustained look at the cultural factors that inform environmental decision-making at multiple levels, from the individual to the international, before the dramatic shift in attitudes and behaviors needed to slow the rate of climate change and mitigate its effects is likely to take place.

We face what Wendell Berry might call, “a problem not solvable by problem-solving.” The humanities – history, philosophy, religion, literature, art, and so forth – are far from instrumental in their approach to knowledge and the world. They are not intended to solve problems, but rather to add nuance, complexity and depth to our understanding of the world and our relationship to other beings, human and otherwise. They enable us to think more clearly and empathetically about the risks and opportunities before us, about the multiple and often unforeseeable ramifications of the choices that we make. As part of a liberal arts college that recognizes the humanities as an essential component of its mission and identity, CES is almost ideally positioned to integrate the humanities into the traditional partnership between environmental policy and environmental science.

Many of you, current students and Williams alumni, have already taken courses in such fields as environmental history, literature, and landscape art history with my colleagues Karen Merrill, D. L. Smith, Sheafe Satterthwaite, and others. As part of an ongoing initiative to expand the humanities component of the Environmental Studies curriculum, we will be joined in 2010-11 by three exceptional visitors. Philosopher William Vitek, a professor at Clarkson University and former fellow at the Land Institute, joins us as the W. Ford Schumann ’50 Visiting Professor in Democratic Studies. We also have two post-doctoral fellows on two-year appointments sponsored by a grant from the Andrew W. Mellon Foundation. Heather Houser, having recently completed her doctorate in English and American literature at Stanford, will teach courses on environmental issues in contemporary US literature. Dr. Nicolas Howe, trained in geography at UCLA and most recently teaching at Case Western Reserve, will offer courses examining the role of religion in contemporary environmental politics.

I am also happy to note that David Cassuto will be joining us in the spring as the Class of 1946 Visiting Distinguished Professor of Environmental Studies. With a doctorate in English literature and a J.D. from the University of California at Berkeley, Professor Cassuto will be teaching environmental law and an additional course dealing with international policy and climate change. We are fortunate to count on the continuing presence of Professor Bill Lynn, who came to Williams in fall 2008 as Visiting Assistant Professor of Environmental Studies. Since then Professor Lynn has taught our introductory course, senior seminar, and environmental policy. As a geographer and environmental ethicist, Professor Lynn brings wide-ranging expertise and a commitment to interdisciplinarity to these important courses.

Two additional items also require mention. First, CES is in the midst of a fundraising campaign, with the full support of the College and the development office. The Mellon grant that will fund the work of our postdocs in 2010-2012 also includes a two-to-one matching grant that will support the new majors by creating a new endowed professorship in Environmental Studies. As Director, I would be happy to discuss the campaign or refer any interested parties to my colleagues in the development office.

Second, if you have walked through the doors of CES in the last twenty-three years, chances are you were greeted by the warm smile and friendly hello of our wonderful administrative assistant, Sandy Zepka. Sandy let us know a few weeks ago that she would be retiring at the end of the summer. On behalf of all of my friends and colleagues here at CES, I would like to thank Sandy for her many years of skillful and dedicated service. We wish her a very happy retirement with her husband Dennis and their children and grandchildren.

I would like to close by thanking everyone who has made my first year as Director so rewarding and productive, beginning with my predecessors Doug Gollin, Karen Merrill, Hank Art, and Tom Jorling, all of whom generously shared their wisdom and experience. I have also benefited from the guidance of an exceptionally dedicated Advisory Board of David Dethier, Ralph Bradburd, Darra Goldstein, and Hank Art. Sarah Gardner, who as Associate Director is an ex officio member of the Advisory Board, has been exemplary in her commitment and expertise as well as her patience in dealing with someone much less seasoned in the workings of the Center. Drew Jones, Manager of Hopkins Memorial Forest, has been a wonderful guide to the flora and fauna of the forest and to the valuable research and teaching that go on there.

I know that like them, our students, alumni and friends are also committed to protecting the environment in your personal and professional lives. Thank you for the good work that you do, and stay in touch – we always love to hear what you’re up to.

With best wishes,

Jennifer L. French
Associate Professor of Spanish
Director, Center for Environmental Studies
The Morris K. Udall and Stewart L. Udall Foundation selected two junior Environmental Studies students, J.J. Augenbraun and Jennifer Rowe, as 2010 Udall Scholars. The scholarship is a competitive selection process open to sophomores and juniors who have committed to careers in the environment, health care or tribal public policy. Both will receive $5000 and will attend the Udall Scholars Orientation this August in Tuscon, Arizona, where they will participate in workshops and network with Udall Scholars from around the country.

The Rosenburg Prize in Environmental Studies for outstanding scholarship and potential for solving local, national, or international environmental problems was awarded to Christopher Law ’10, a Political Economy major and an Environmental Studies concentrator.

In recognition of his dedication to the Center for Environmental Studies and his valuable contributions to the program, Daniel Gura ’10, an English major and Environmental Studies concentrator, was awarded the Environmental Studies Committee Prize.

Benjamin Cohen ’10, a Biology major, won the Tom Hardie III Memorial Award for the best student work in Environmental Studies in recognition of his independent study paper, “An Assessment of Historical Contamination in Arctic Mammals.” His paper is posted on the CES website at: http://ces.williams.edu/?page_id=89

Environmental Studies Class Day Prizes

Joya Sonnenfeldt ’10, won the Scheffey Award in recognition of her outstanding environmental accomplishments and leadership. Joya also received accolades from the Center for Environmental Studies for being the first Williams student to graduate with the new Environmental Policy major.

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CES T-Shirts

CES t-shirts are for sale in the office:
organic cotton, light gray, eco-friendly ink
with purple cow image.
Sizes: S, M, L, XL,
$15 each

CEE T-Shirts

drawing by Katie Craig
Sandy Zepka, the Administrative Assistant in CES, retired on June 30, after contributing notably to the Center for over 23 years. We will miss her mightily, for sure! But, as Dr. Seuss said (or not—the source is disputed), “Don’t cry because it’s over. Smile because it happened.”

Sandy has been a vital force in making CES “run.” Not just her great capability and energy, but her warm and outgoing personality, and equanimity in the face of various ruffles, have been mainstays for us. In addition to the standard—but by no means slight—accomplishments in general office management, she played a major role in budgeting and accounting (on which score our affairs are unusually complex). She also helped plan the many recurring events that mean so much to students, faculty, and alumni: Log Lunch; the reception for seniors and families on Commencement Weekend; the Alumni Weekend picnic; and many others. She got us through the move from Kellogg to Harper House in 2008. Especially notable has been her ability to work with many different CES Directors—helping new ones settle in has been a very important, though not so visible to students, contribution, and no mean feat. She told me recently, “I haven’t met a Director I didn’t like.”

I myself hired Sandy initially in February 1987, as the administrative assistant in the Center for the Humanities and Social Sciences (later to become the Oakley Center). I was Director of that center. Tom Jorling, then Director of CES, agreed with me that Sandy would also work some hours for CES, since the two centers shared space in Kellogg House. In July of that year she moved to the full-time position in CES on the retirement of Pat Wilson.

Sandy grew up in Williamstown and worked for Williams a bit after high school—in Dining Services (including in the Snack Bar). One of her most vivid memories is being in the crew at Elm Tree House (at Mt. Hope Farm) that took care of the King of Thailand when he received an honorary degree at Commencement in 1967. Immediately before coming to CES, she was working as an secretary/aide in special needs education at Drury High School in North Adams.

Now, on retirement, she looks forward to spending more time gardening, learning about genealogy, and having more time to travel with her husband Dennis (a retired design draftsman at General Dynamics in Pittsfield) to visit her two children and three grandchildren.

Sandy is one of those people I think of when I remember the Biblical story of the prophet Elijah and the “widow’s cruse” (1 Kings 17). The widow had only a handful of meal and a tiny bit of oil in a jar (the “cruse”), but divine intervention allowed her to feed Elijah and her own family for many days, because the meal and the oil in the cruse never ran out. “Widow’s cruse” has for ages been a metaphor for an inexhaustible supply of something. Sandy Zepka has been an inexhaustible source of talent, loyalty, and good cheer for all of us here at CES.

Please send her thanks and congratulations!

szsandenny@yahoo.com
A Year of Log Lunches: 
Stimulating Talks and Scrumptious Soups
by Jack Rudolph ’11 (fall semester) and Cedar Blazek ’12 (spring semester)

September 18: The Ethical and Practical Dilemmas of an Environmental Advocate, Jack Murray ‘70, Director of Development, Natural Resources Defense Council

Jack Murray came to Log Lunch to discuss the importance of CES at Williams. He had the audience laughing before he elaborated on his work at NRDC. “Quoting” Voltaire, he said, “If CES did not exist, it would be necessary to invent it.” Jokes partially aside, he moved on to some of the more delicate issues that he faces at NRDC. One example was a scenario in which a natural-gas executive wanted to give a seven-figure donation. He described the various factors contributing to the situation, and explained that NRDC did not accept the donation due to what they believed to be a conflict of interest. Another NGO ended up accepting the donation and has done great things with the money, but he questioned whether this sort of looseness leads to a dilution of important environmental initiatives and messages. He made sure to reiterate that this was one example of many, and that it is difficult to evaluate these decisions. There is no black or white in these types of scenarios—there are only shades of grey. Or maybe green.

September 24: A Very Small Fish in an Iron Triangle, Zygmunt Plater, Professor of Law, Boston College Law School

Zyg Plater talked about the infamous environmental law case, Snail Darter v. Tennessee Valley Authority. The Snail Darter was discovered in a Tennessee river that was used for traditional Cherokee customs and was home to three hundred family farms. The Tennessee Valley Authority wanted, and was ultimately approved, to build a massive dam that flooded this land rendering it unusable for farming. Supposedly, this reservoir land would fuel industrial investment in the declining Tennessee community, but the land ended up as housing developments. It became a landmark case in the Supreme Court that helped to shape the Endangered Species Act. This is a case that many politicians use to try to make environmentalists appear as crazy hippies, but Zyg explained how much can be learned from this unfortunate outcome. The Snail Darter was a way to try to protect land for hundreds of farmers and Native Americans. In the end, the snail darter and farmers lost, but it set a precedent for future ESA cases, and helped to illustrate how delicate the language of law can be. Look out for his forthcoming book, Fish in a Pork Barrel.

October 2: Hundred Mile Wilderness, Allegra Hyde ’10 and Achieving Climate Justice Through Just Climate Policy, Chandler Sherman ’11

Allegra Hyde and Chandler Sherman both presented on their summer projects funded by CES. Allegra Hyde made a video about her backpacking trip with her father through the Hundred Mile Wilderness at the top of the Appalachian Trail in Maine. It was her father’s first real backpacking trip, and the pair each carried a forty pound pack with supplies for ten days of hiking. She described various encounters with thru-hikers at the beginnings and ends of their journeys and talked about how it was a unique experience to lead her father. Chandler had a summer in a very different landscape: the Bronx. She worked at WE ACT for Environmental Justice, an organization whose tagline reads, “The environment is where we live, work, play, pray, and learn”. She talked about her summer helping the non-profit to fight environmental racism and improve environmental health, protection and policy in communities of color.

October 9: Studying Snakes: Fun, Fascinating, and Sometimes Dangerous! Tom Tyning, Professor of Environmental Science, Berkshire Community College

Tom Tyning spoke about his life experience researching snakes, especially with the Timber Rattlesnake of New York. 

Ann Stengle and Tom Tyning
England. The Timber is the most endangered vertebrate in all of New England, and Tom has been chasing these snakes around since he was a little boy. He spoke about early endeavors of herpetology where he and his friends would bushwhack with pillowcases and golf clubs to wrangle the snakes. The herpetologist relayed the threats facing the snake such as low population densities and relatively slow reproductive rates. You can likely find Tom in the Berkshires with a crew of students, tiptoeing around rocks, snake hunting.

October 16: Sacred Water, Safe Water?, Ali DeMarchis ’10 and Corey Watts ’10 and A Summer with the Pediatric Environmental Health Specialty Unit
Kathleen Durante ’11 Ali DeMarchis and Corey Watts received summer funding to travel to Katmandu, Nepal to work with local scientists researching public health issues related to contaminated water. Essentially, the Nepali people rely on contaminated wells containing carcinogens and other pollutants. Ali’s and Corey’s research looked to identify factors leading to infectious disease. Ultimately, their research will be a part of a solution to remediate the contamination and finding clean water solutions for the Nepali people.

Kathleen Durante spoke about her pediatric environmental health fellowship at the Mount Sinai Hospital in East Harlem, New York. She studied heat waves in urban environments, especially the effects of urban heat islands on the severity of human health impacts caused by heat. She was especially interested in how the distributional effects of hot weather disproportionately burden the poor. Her research involved talking to health care providers to test their knowledge of these phenomena and to see if she could gauge any increase in awareness to inform the Department of Public Health. She learned that serious public health issues are not limited to developing countries, but exist right here in United States.

October 30: Greening the Concept of Wise Use: Can Habitat Conservation, Natural Resource Based Jobs and Community Character Co-exist? Paul Gallay ’81, former President, Maine Coast Heritage Trust
Paul talked about his work conserving land on the Maine Coast and described some of his successful efforts to institute a new policy of conserving land for public access and recreation for the land trust.

November 6: Sustainability at Williams: Grounds Practices and Wind Energy, J.J. Augenbraun ’11, Hannah Hausman ’12, and Stephanie Boyd, Director of the Zilkha Center for Environmental Initiatives
Students JJ Augenbraun and Hannah Hausman discussed their summer work on campus sustainability issues.

November 13: Seven Ideas about Landscape, Ethan Jackson ’92, Photographer
Ethan Jackson studied art at Williams and returned as a visiting professor in 2008 to teach photography. He spoke about a broad spectrum of projects ranging from electronic, high-tech renderings of the surface of Mars to spaghetti westerns, to camera obscura installations. He told stories about a range of topics he encounters in his work, from collaborating with computer scientists to working alone in the countryside. He showed breathtaking videos of camera obscura projects in the Great Plains and even Williamstown’s Mount Hope that worked to bring the outdoors in.

November 20: Conservation Across Borders, Charles Chester, Lecturer, Brandeis University
Charles Chester is the Coordinator of the Conservation and Climate Change Clearing House, and he spoke about trans-boundary protected areas. He first created historical context, citing projects such as the 1780 example of protected forests in Central Europe. He then moved on to more modern models of trans-boundary protected areas in Southern Africa and between Ecuador and Peru. The talk ended with an explanation of his dream of “Yellowstone to the Yukon,” a vast conservation project aiming to link protected areas spanning from the north of the United States all the way to the northern reaches of Canada.

December 4: Living Deliberately: Building a House for the 21st Century, William Moomaw ’59, Professor of International Environmental Policy and Director of the Center for International Environment and Resource Policy, Tufts University
Bill Moomaw spoke about his new house in Williamstown. His talk started with Thoreau’s life in a simple house, walking everywhere on foot, and valuing “time” as the most valuable commodity. Today, Moomaw said we have largely forgotten these ideals. His goal was to build a zero net energy home, that is, a building that produces as much energy as it consumes. He had a four-fold aesthetic to protect the beauty of his
house’s natural setting: he used highly efficient design, he met all the functional needs with a modest footprint, and he created a model house for others that is desirable, achievable, comfortable and easy to maintain and operate.

January 8: The Man Behind Captain Planet, Jessica Clark ’10 and A Story of Glaciers: Exploring Climate Change, Lizzy Brickley ’10
Jessica and Lizzy presented on their summer research endeavors. See page 15 for more details.

January 15: The Soulful Landscape: Restoring the Relationship Between People and Place, Erica Wheeler, award-winning singer/songwriter
Erica Wheeler presented, “The Soulful Landscape,” a short workshop and performance devoted to the relationships between people and place. Believing that “personal stories of connection are the foundation for stewardship of our treasured places,” Wheeler’s songs drew on her experience of landscapes ranging from New England woods to southwestern deserts.

January 22: Literature and the Environment, Jennifer French, Director, CES and Associate Professor of Spanish
Jennifer spoke about environmental literature from Latin America, focusing on the Uruguayan Horacio Quiroga, who was both a pioneer of the modern short-story and a pioneer on the semi-tropical frontier of northeastern Argentina. Quiroga’s values and attitudes will seem familiar to many readers of US environmental literature, especially Thoreau’s work, with the important distinction that for Quiroga the “wilderness” was not a place to escape from capitalism and modernity but rather where both were inevitably present, often brutally so.

February 12: SEA in Woods Hole: Nautical Science, Oceanography and the Social Sciences on Land and at Sea, Erik Zettler, SEA Faculty, Chief Scientist and Virginia Land, SEA Faculty Sea Captain
Erik Zettler and Virginia Land McGuire, faculty of SEA, discussed their study abroad program, in which students spend a semester studying various aspects of the sea and the nautical world. Based in Woods Hole, Massachusetts, students spend six weeks on a land-based campus preparing for their voyage and then set sail for a six-week journey on the ocean. The interdisciplinary program includes oceanography, maritime studies and ship handling and navigation. Students learn various sailing skills in addition to academics. For example, students primarily rely on celestial navigation to route their ship’s course without the aid of modern technology. When on land, students learn the theories behind oceanographic science and humanities, and then prepare a proposal for a research experiment to be conducted at sea. Some past student projects include a study of the effects of pH acidification on pteropods, distribution and diversity of phytoplankton, and sustainability in Polynesian island cultures and ecosystems. Often students’ data is submitted to national archives. This combination of travel, science and new skills allows students to have an adventure with an academic purpose.

February 26: Beyond the Gate: Prospects for Community-Based Tourism in Eleuthera, Sarah Gardner, Associate Director and Lecturer, CES, and Sustainable Tourism Winter Study Students
Sarah Gardner and her winter study class showed the short film they made during the travel winter study class and gave a presentation on the research they conducted on Sustainable Tourism. They explained the economic decline that plagues Eleuthera Island, the development proposals for mega-resorts, discussed their research findings from interviews with Eleutherans, and outlined their proposal for an alternate form of economic development on the island:
community-based tourism. In this model, tourist businesses are owned by local people, tourism celebrates the people and culture, and the natural environment is preserved as a valuable asset instead of the traditional model of Caribbean tourism, which reshapes natural coastlines to create artificial environments and creates simulated, sanitized cultural experiences for tourists.

March 5: Global Warming and American Politics, James Gomes, Director, Mosakowski Institute for Public Enterprise, Clark University

Currently, the number of Americans who believe in climate change is on the decline. Despite vast scientific evidence supporting climate change, an increasing number of people believe that the data are exaggerated. Only about half of Americans surveyed believe that global warming is the result of human activity. These numbers explain the lack of interest among the general public in finding solutions to climate change. Gomes argues that it is difficult to push Americans to consider it a serious issue, not only because of our dependence on fossil fuels but due to the disproportionate political influence of the oil industry. One political strategy that Gomes suggest is a Coalition Strategy, which would unite those focused on environmental issues, labor issues (as sustainable development could create new jobs), energy independence and agriculture to achieve a common goal. Another option is single issue politics, in which a person or group makes a political stance based on one issue (e.g. sustainable energy) and will support or resist other issues based on the others’ stance on the single issue. An even more drastic measure proposed by Gomes is to reinstitute real democracy, which includes eliminating the two party system and the Electoral College, allowing for the voices of the majority to be truly heard. Our current system is working to make some of these changes. The Waxman-Markey House Bill was passed in 2009 and proposes to cut emissions by 17% by 2020, and 80-85% by 2050 and also includes a cap-and-trade agreement. It seems the government is slowly focusing more on the pressing issue of global warming, but Gomes believes that new strategies are needed to truly solve the problem.

March 12: The Art of Looking, Christian McEwen, Visiting Lecturer in Environmental Studies, Williams College

Christian McEwen, a visiting lecturer in environmental studies teaching Creative Non-fiction Writing, read various selections from her book entitled, Ordinary Joy: The Necessary Art of Slowing Down, an eclectic collection including influences of poetry, Buddhism and literary anecdote, the book serves as a guide to invoking slowness, observation and joy in life.

McEwen began her reading with an excerpt from the introduction of her book, which discusses how we all live in a culture obsessed with speed. The word “busy” in our culture has come to be synonymous with “interesting” and “important,” and therefore everyone attempts to fill their lives with as many activities as possible. McEwen thinks this belief is hurting people and our lives would be richer and more enjoyable if we would slow down. She emphasizes the value of observation and seeing rather than doing, an idea exemplified by John Ruskin, a nature artist who found the true meaning of joy in drawing.

April 9: From Green Chemistry To Emerging Contaminants: Are We Getting Any Better At Engineering New Materials That Are Environmentally Safe? Paul Tratnyek ’80, Professor, Division of Environmental and Biomolecular Systems, Oregon Health & Science University

Paul Tratnyek works on discovering and mapping reservoirs of environmental contaminants in order to measure their levels and interactions. Tratnyek explained two categories of pollutants: early priority contaminants and emerging contaminants. The first group includes persistent organic pollutants (POPs) and persistent bioaccumulative toxins (PBTs). A larger concern exists for emerging contaminants which have been increasing recently. One example Tratnyek provided is MTBE, which sharply increased in the 1980s. To show the scope of the problem, the USGS has estimated that nearly 15 percent of drinking water is contaminated and would incur a clean-up cost of one to three billion dollars. Similar problems are arising with other contaminants and can pose serious threats to the environment and human life. Hoping to help solve the problem, Tratnyek works to create models of transformation properties and movement across different reservoirs and zones. One solution to the problems presented by environmental contaminants is nanoparticles, which attract contaminants and essentially clean up contaminated ground water. However, the environmental impact of these particles has not yet been assessed. Major research challenges in this field include the exploration of the diffusion and behavior of the particles and their reactivity. Tratnyek is hopeful that the nanoparticles will have a positive impact on contaminants in the water supply.
April 16: Williamstown in Transition: The Town Hasn’t Always Looked This Way, Hank Art, Rosenberg Professor of Environmental Studies and Biology, Williams College

Hank Art guided the attendees of Log Lunch through an aerial history of the land in and around Williamstown. Currently, the town consists mostly of farm fields, forests and buildings, but there is a rich history to be found in the land use of the area. Art wanted to visually document changes that have occurred over the past two centuries, and to reveal the rate at which those changes took place. Before unveiling his project, Art delivered a brief history of Williamstown. In 1750, the town experienced a bout of early land clearing as residents converted virgin forest into arable land, which could be cleared at the rate of about 1 acre per person per year. By the 1850s, two-thirds of Williamstown had been cleared. During the period between 1935 and 1970, there was a great increase in forest re-growth which has remained until present day. His series of videos reveal changes to the land over many years. Each video, focusing on a specific area in Williamstown, consisted of a graduated series of aerial photographs that marked the growth and decline of forests, farms, pastures and other features. Art hopes that his project can help reveal the rich land history that resides in Williamstown as well as demonstrate human impact on the surface of the earth.

April 23: Ecosamaritan or Ecostressor? A New Dilemma in Conservation Biology, Jim Carlton, Professor Marine Science and Director, Williams Mystic Program

Jim Carlton gave an entertaining yet provocative talk about his research on threatened and endangered marine species. He talked about marine invasives and how many species have been introduced that have outcompeted natives species. He discussed how some species that are now threatened in their native habitat have become nuisances in places where they were introduced. Finally, he explained the idea of assisted migration, a method to prevent species extinction, but which is also fraught with ecological complications.


The Blooming Grove Hunting and Fishing Club, founded in 1871, is a 20,000 acre preserve managed by a staff of 18. The land, located in the Poconos, measures 14 by 3 miles and has 2 rivers and 6 major lakes, including the clearest lake in America. Initial planning began in 2000 for ways to protect the area. Challenges include deteriorating habitat conditions and immediate threats such as the gypsy moth, Wooly Adelgid, encroaching development, winter starvation, competing vegetation and soil fertility. For the property to be fully protected and well maintained, Worth Linen argues that the members need to fully commit themselves to managing the property on a scientific, disciplined, long-term basis. Linen’s “vision for tomorrow” is that of a biologically diverse park, with an optimal mix of open space and forest cover, renewable timber resources and optimization of the land to support club priorities such as stream/lake maintenance. He also hopes to maintain a predator/prey cycle that is balanced as well as begin an identification and protection of rare species of plants. Their main objectives include improved habitat and water quality and well as improved recreational uses. The current action plan for the area involves gathering soil data as well as mapping watersheds and resources. Linen hopes to gain more knowledge about specific distributions of resources on the land to help devise the best land management solutions.
October 8: *Sustainability: A Good Without a Light*, James Kunstler and Curtis White

In collaboration with Orion Magazine, Sarah Gardner (Environmental Studies) and Jim Nolan (Sociology) brought authors Jim Kuntsler (*The Long Emergency: Surviving the Converging Catastrophes of the Twenty First Century*) and Curtis White (*The Barbaric Heart*) to campus to speak in their respective classes on environmental planning and technology. Both speakers defy convention and question common terms such as “environmentalism” and “sustainability.” Kuntsler, famous for his caustic speech and brutally truthful societal analysis, spoke about the coming end of the fossil fuel era. He was quick to eliminate the prospect of any society in the future functioning on the scale of American suburbia. He discussed the difficult transitions ahead: from globalization to localization, agribusiness to local small-scale organic farms, and individualistic to collective economies. Although his message often seemed grim and pessimistic, Kuntsler reassured the audience that he was, in fact, an optimist. He attacked many of society’s current practices but he did not question our ability to eventually make the transition. That, he said, is inevitable. Instead he asked people to consider how society will position itself to make these difficult transitions manageable. White spoke about his book, *The Barbaric Heart*, which explores ancient human barbarism as the root of environmental degradation, instead of the usual culprits: big-businesses like Walmart and Monsanto. He asserted that environmentalism had lost a lot of its meaning, and that looking at solutions to global problems would in fact create no solutions at all. Instead, he talked about the value of looking inward, which can lead to a true revolution.

February 16: *Mountain Top Removal Road Show*, Dave Cooper, Laura Steepleton, Erin McHelvey, and The Beehive Collective, Erin McHelvy

Coal mining began as an underground process in which thin seams of coal that occur in the mountain were removed by drilling into the sides of mountains and sending people in to extract the most coal possible. However, it was soon realized that a much more efficient way to reach these seams was simply to remove the top portion of the mountain to remove the entire seam. A further aspect of mountain top removal involves filling in the valleys in the mountain range with the excess sediment, creating level, barren landscape in previously mountainous and biodiverse forested areas. A serious problem associated with this form of mining is the accumulation of coal slurries, which are large lakes of toxic coal sludge held in place by dams, which are often placed above nearby communities. A principle goal of Mountain Justice is to build a
new school to replace the one that currently rests in a valley beneath a massive coal slurry. To respond to the problems caused by coal excavation, Mountain Justice advocates for peaceful protest, service work for communities and families, and renewable energy education. The organization calls for national attention to this devastating environmental and human crisis. Some examples of their actions include a sit-in at the governor’s office, lock downs in front of rock trucks, protests, marches and tree-sits.

After Dave Cooper’s talk, Erin McHelvy, of the Beehive Collective, presented her monumental mural, “The True Cost of Coal,” a giant piece of artwork created by about ten artists. The idea behind the True Cost of Coal Campaign and the mural is to use it as a teaching tool to tell the story and history of coal mining in Appalachia. The mural flows from left to right in five stages, each one describing a different period of time: the natural world, political change, consumption/destruction, beginning of resistance and healing/rebuilding. Their aim is to educate and raise awareness about coal production and the plight of the people in coal country. The mural is a work in progress; sections may be viewed at: http://www.beehivecollective.org/imagegallery/main.php?g2_itemId=237

April 15: Climate Change Avatars: Students in the Fight for the Future, Eban Goodstein, Director, Bard Center For Environmental Policy
by Cedar Blazek ’12
Eban Goodstein began his lecture with the disturbing announcement that there will be a 4-12 degree increase in global temperatures during our lifetime. Such a dramatic change could have profound impacts on our Earth, which Goodstein exemplified by noting that during the last ice age, the global temperature was only 9 degrees cooler than today. We are currently at the highest concentration of carbon dioxide in the atmosphere at 390 ppm; before today, concentrations had never risen above 300 ppm. Goodstein supports a plan to stabilize carbon dioxide at 450 ppm in the atmosphere; developed countries would need to immediately decrease emissions while developing countries would be permitted to increase emissions due to modernization until 2050 when they, too, would begin to decrease. To enact this plan, Goodstein states the need to form grassroots movements to break the governmental gridlock and “put a price on carbon” through cap and trade legislation. He hopes and expects that the young generation of today will transform the global economy from 2020-2040. One way this will occur is through the Campus2Congress (C2C) National Teach In, which allows for senators to engage in a dialogue with groups of students across the country via Skype. The organization connects students with the U.S. senate and more specifically the Climate and Energy Staff. Goodstein is hopeful that these dialogues are the beginning of change in government policy towards carbon dioxide emissions. CES will host a conference in September 2010 to kick off Williams involvement in C2C.

by Cedar Blazek ’12
On the 40th anniversary of Earth Day, Sarah Gardner opened with a brief history of the day before proceeding to introduce the Earth Day keynote speaker, Dave Moulton of the Wilderness Society. Moulton began with a brief recognition of how Earth Day has come to be more of a celebration, rather than a call to action as it had been at its creation in 1970. Now, he argues, we have no time left for celebration as we are at a pivotal point in our earth’s environmental history. Moulton expressed the need for a common set of rules to govern emissions, an act attempted at the Copenhagen conference that failed. Currently, federal subsidies for fossil fuels triple the amount given towards renewable resources. These renewable resources could slow the effects of global warming and reduce carbon emissions significantly. However, public support may be hard to muster. According to a recent Gallop poll, 73% of people recognized a need for carbon dioxide regulation. Though in contrast, ⅔ of Americans thought priority should be given to coal, oil and gas over renewable resources. Yet Moulton believes that a climate change resolution is possible. A new Clean Energy Bill includes a path forward to a clean energy future, which means completely de-carbonizing the U.S. in 150 years. While the goal seems far off, Moulton argues that given the workings of our political system, we must take whatever small changes we can get; any carbon-cutting legislation is better than none. The Wilderness Society is urging that Earth Day 2010 be used as a powerful force to build support for the senate to pass the Clean Energy Bill. In his final remarks, Moulton advised supporters not to give up until climate legislation is passed.
Spring in Hopkins Forest, and what a strange one it was…

by Drew Jones, Hopkins Forest Manager

Whether a symptom of global climate change or some more random factor it’s too early to tell, but what we do know is that the first half of this year offered some anomalous weather and its effects have rippled through the forest’s soil and streams, flora and fauna. Certainly, everything from maple sugar production to salamander migrations to the blooming of wildflowers was a little off what we’ve come to expect around here. Let’s take a stroll through the forest, starting back in February…

A February 2010 walk on the lower loop trail would have necessitated more in the way of a good pair of mud boots than skis or snowshoes; indeed the trail lay bare or under a mere thin coat of crusty snow during most of the month. After a warm, late-January rain washed away much of the early winter snow pack, the snow was slow to return, and generally short-lasted when it did – forcing Nordic skiers and other snow enthusiasts to head for the Green Mountains or Berkshire Plateau in search of good coverage. Jay Racela, CES’s Technical Assistant, noticed that this snowless episode corresponded neatly to a span of abnormally high temperatures; with data from the Hopkins Forest’s main weather station, Jay attested that a 70-day period from mid-January through late March recorded only eight days of sub normal mean temperatures, while many of the rest were well above long-term averages.

It is unclear to me to what extent these tame late-winter conditions affected the maple sap production in Hopkins Forest, but, suffice it to say, this was by far the leanest year for sap and syrup yields in my tenure as Manager. The season began like many others, with student caretakers going out in late February to hang 125 buckets. But within a few days, it became evident that there was something amiss with the trees: instead of the 200-300 gallons that we would expect during a good sap run (typically a warm day following a sub-freezing night), this year we were hard-pressed to get 100 gallons in the tank. Certainly, some of the sap might have run during some of the milder days in February, but that alone would seem insufficient to explain this vast deficit. Then, to make matters worse, in early March the low temperatures stagnated at or above freezing for many nights on end, and the sap slowed down to a trickle; this effectively ended the season by eve of spring break, the normal peak of sap production. Maple producers from here to Agawam pretty much all had similar laments this year.

The lack of snow and generally mild temperatures that affected the maples meant an early awakening for many of the forest’s other dormant biota this spring. Indeed, we had hardly finished re-deploying the drift fence around the vernal pools when the annual amphibian migration broke in earnest. On the rainy morning of March 23rd students from Williams and Massachusetts College of Liberal Arts pulled nearly 1000 wood frogs from the bucket traps that encircle their breeding pools. These frogs were not alone: this early arousal, one to two weeks before normal, was also experienced by dozens of spotted salamanders and Eastern newts, spring peepers and red-backed salamanders and even one hearty hellgrammite (dobsonfly larvae) leaving the water at this early date to enter its pupal phase.

Around this time, the botanical side of the forest was springing to life as well. In March, poplar and maple trees were already breaking bud and flowers were visible on red and silver maples by the equinox. This flush was followed by a sequence of early blooms from all manner of spring wildflowers, each a week or more ahead of its traditional bloom date. This incongruity made for some surprises on Hank Art’s annual Mother’s Day wildflower walk. If participants were a tad disappointed to have missed some of the early spring ephemerals – such as spring beauty and Dutchman’s britches – there must have been some consolation when they happened upon a stand of pink ladyslippers in their full splendor along the side of the trail; for this orchid is better known for flowering closer to Memorial Day.

The early flushes and blooms were not without their perils however -- for this is New England, and sooner or later, the weather will change. That change, which contradicted
long period of mild weather documented by Jay Racela, arrived on the week of May 10th when temperatures finally plunged below freezing for the first time in weeks. And the damage was evident: on a visit to the forest with a local home-schooling group, young explorers questioned the brown and wilted appearance of the ferns growing along the trail. Certainly, these sensitive ferns are well named as it was clear from their atrophied leaves that they had fallen victim to the recent frost. The damage was also noticeable along the banks of the Hoosic River a week later as students from Mea Cook’s Environmental Science class paddled by on their annual flotilla. Many of the ferns and knotweeds that line the river were shriveled and brown, and the sumacs and walnuts had dead leaves drooping from their branches. Even the sugar maple, a long time bastion of New England forests, exhibited symptoms of nature’s cruel trickery. What will become of these plants that were lured back to life early only to be zapped by a mid-May frost? Certainly some are already recovering, releasing a new flush of shoots and leaves to replace their dead predecessors. These plants may live on, but at a cost -- weakened by the loss of valuable energy that had been invested in their early leaf production.

Meanwhile, back in the forest, what was happening with the birds? Would the neo-tropical songbirds arrive ahead of schedule as with much of the other life? Most area bird watchers will tell you that May first is a magical time in ornithology, a moment when most of the small, colorful, boisterous warblers, tanagers, thrushes and orioles return from their winter haunts in the tropics to rear their broods in the vast northern woods. But unlike much of the other life in the forest, these long distance avian travelers were not early; for the cues they rely upon to signal their passage, including day length and solar angle, were not linked to the mild early conditions in the north, and by the time a suitable south wind flow piped up, the warblers and their kin were right on, but not ahead of schedule. Their arrival on and around May 2nd came just in time for the first of four scheduled field visits by students in Heather Williams’ Biology class, who observed them as part of a lab on wood warbler evolution. Whether these warblers, on returning from their 1500-mile journeys, found anything at all amiss on their summer grounds, it’s hard to tell.

Environmental Analysis Lab

by Jay Racela

The Center for Environmental Studies’ Environmental Analysis Lab, under the guidance of Prof. David Dethier and Technical Assistant Jay Racela, continues the process of gathering and analyzing meteorological, hydrological and biogeochemical data in the Hopkins Memorial Forest (HMF).

Meteorological data generated via four weather stations using digital data loggers, which run continuously throughout the year. Data from the main weather station are streamed to the campus information network and displayed (www.williams.edu/Geoscience/weather/) along with “live” data feeds from our 50-meter meteorological monitoring (MET) tower on the Taconic Ridge and the Morley Science Labs (MSL) PV array are also on this site. Weather data has been collected at the main station since 1983, the MET since 2004 and the PV array since 2005.

Hydrological data for the Birch Brook watershed comes from two stream-gauging stations located at the Civilian Conservation Corps constructed concrete dams (or weirs) within Hopkins Forest. Data is recorded electronically using digital data loggers to continuously monitor stream depth (discharge) and temperature at the weirs in the Main Stem and South Branch of Birch Brook. Data has been collected continuously from 1984 to the present.

Biogeochemical data have been generated for precipitation samples collected bi-weekly since June 1983 in the field by the main weather station in HMF. Additionally Birch Brook samples have been collected and analyzed monthly since 1984 upstream from where Birch Brook and Buxton Brook converge along
Environmental Planning Workshop

by Sarah Gardner

The Environmental Planning Workshop is an experiential, hands-on course in which students work in small groups on actual planning projects for local organizations that request our assistance. There were five projects last year.

Working with community clients Judy Grinnell, founder of the Hoosic River Revival Coalition, and Lauren Stevens, of the Hoosic River Watershed Association, the student team conducted a planning study of the Hoosic River flood control chutes, structures that contain the river for two miles through downtown North Adams. The goal of the project was to find ways to naturalize the channelized river to improve it ecologically, and develop plans to integrate the concrete river into the fabric of the city to create a more vibrant and beautiful downtown. The students’ project was helpful in moving this project forward: in April the Hoosic River Revival Coalition received a planning grant of $10,000 from the Commonwealth to take this project to the next step.

A second project team also focused on North Adams. Under the guidance of Nancy Nylen and Wendy Penner, both of the Center for Ecological Technology, students Alisha Cahlan, Madeline King, Sasha Macko, Rachel Savain and Chandler Sherman developed a carbon reduction program for the downtown businesses in North Adams. While a local organization had done energy efficiency programs in the residential sector of the city, the issue of the commercial sector had not been tackled. This project helped jump start green business planning in North Adams and will help the city achieve “Green Community” status under the Commonwealth’s Green Communities program.

The Williamstown Superblock project team focused on revitalizing the large, underused and partially vacant downtown block in Williamstown between Spring Street and Water Street. The goal is to find a higher and better use for the site
by expanding the commercial and residential district to this
critical downtown area. Ann McCallum, local architect and
planning board member, directed this project, and the stu-
dents furthered ideas for the site and explored feasibility
and designs for various scenarios. Their report is useful to
town officials as the future of this block is currently being
discussed.

Professor Hank Art served as the client to the Williamstown
Public Lands project team, which reviewed the ten-year old
management plan for five town-owned parcels, and
revised and further researched possible uses for the
lands managed by the Williamstown Conservation Com-
mission.

Finally, a team of students focused on an issue close to
those of us at CES: the future of our former home, Kellogg
House, which currently sits vacant awaiting a move to some
new site on campus. As the oldest frame building on cam-
pus, and the former president’s home, Kellogg is a historic building and happily for those of us attached to the building, it
is protected from demolition. Working with local architect Andy Burr, and David Dower, former Director of Facilities Planning,
the students considered several uses and locations for the building and ultimately recommended using Kellogg House
(with an addition and green renovation) as the home of CES and moving it to a more central location on campus. They
suggested a site on Park Street, the location of the former children’s center, which is empty and slated for demolition. As
CES takes up the issue of our future home this academic year, we will seriously consider this option, which seems to meet
many of our needs, including being centrally-located and having enough yard and sunlight for a garden.

The Environmental Planning final reports are available on the CES website at: http://ces.williams.edu/?page_id=157

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**SUMMER GRANT AND INTERNSHIP PROGRAM**

The Center for Environmental Studies, thanks to the sup-
port of several donors, sponsors a competitive summer
funding program for students who wish to pursue their
interests in environmental studies through internships, re-
search projects, and creative endeavors during the sum-
mer. Below are the student projects that were awarded
funding for summer 2009.

**Alex Beecher ’10**

Last summer, I had the privilege of researching organic so-
lar cells. Though BHJ organic solar cells offer significant
advantages over available photovoltaic technology, they
currently suffer from low energy conversion efficiency. I
worked to improve the efficiency of organic solar cells from
a morphological perspective by: 1) introducing fluorocar-
bon functionality into the monomer structure and 2) induc-
ing region-regularity in the polymer. Fluorinated polymer
solubility issues have led us to design new monomers and
attempt to control polymer molecular weight, which thus far
remains a challenge. Efforts to synthesize new monomers
and region-regular polymers continue successfully, and we
have begun device testing. I will continue working on this
project during the academic year.

**Elizabeth Brickley ’10**

Last summer, I had the wonderful opportunity to travel to
Switzerland to study the impact of glacial retreat on Swiss
culture, economy, and environment. The experience was
incredible academically and transformative on a personal level. Every day, I met with new people, and my interviewees were quite varied: mountain guides, farmers, geomorphologists, hotel owners, sustainability philosophers, World Health Organization researchers, Alpine ecologists, skiers, and nuns, to name a few! In addition, I visited many endangered sites in Switzerland where the glaciers are visibly receding. My observations and experiences from this summer have solidified my dreams of pursuing climate change research as a career path.

Chad Brown ’10
Last summer, I was lucky enough to receive summer internship funding from the Center for Environmental Studies to work with two communities in Berkshire County to assist in their efforts to reduce their carbon footprint. The majority of my time was spent in Pittsfield, where I completed a greenhouse gas inventory the begun the previous summer. I used this greenhouse gas inventory to develop a Climate Change Action Plan, which provided ideas that the city could implement to reduce emissions. I also completed Pittsfield’s application for the Energy Efficiency and Conservation Block Grant (EECBG), a federal program funded by the American Recovery and Reinvestment Act (ARRA). Through this program, Pittsfield was awarded $189,100 to be used for energy efficiency projects in municipal buildings. Finally, I worked with Pittsfield’s Green Commission to lead the city toward becoming a “Green Community” under the Massachusetts’ Green Communities Act. Communities meeting the five Green Communities qualifications are eligible to receive part of the $10 million set aside annually for energy efficiency projects. I also spent some time in Lenox, where I completed a greenhouse gas inventory which measured CO2 emissions for both municipal operations and the community as a whole. I would like to thank CES for funding a summer internship that was extremely rewarding and provided valuable work experience.

Beryl Manning-Geist ’11
The Punta Galera community established Ecuador’s first continental marine reserve in 2009. I interned last summer with the Nazca foundation, a group of seven individuals with the original vision for the reserve. I acted as the director of a program which taught local leaders a successful model of ecotourism in order to guide the development of tourism in the region. I am excited to see how the reserve develops, and I am hopeful for the future of the area.

Shawn Curley ’11
Last summer I worked at the St. Lawrence River Institute of Environmental Sciences located in Cornwall, Canada. During my six week tenure, I was involved in a number of field research projects, each of which concentrated on different aspects of river ecology. Much of my time was spent directly on or in the water. Some days would be spent in a boat, cruising along the river while radio tracking northern pike. Other days would be spent directly in the water, where we would capture minnows in order to determine population sizes. Needless to say, the River Institute offered a variety of river research opportunities. Whether I was studying big fish or small fish, I gained a wealth of experience in field research and river biology. My time at the Institute was definitely a worthwhile undertaking, and I am sincerely glad I had the opportunity to work at such a fantastic research facility.

Evan Dethier ’11
At the beginning of the summer I embarked on a photography project. I hoped to show development and change through the recreation of old photographs from Williamstown and around New England. Unfortunately, Williamstown and New England produced an almost steady drizzle for the entirety of June and July, making photography incredibly difficult. In addition to taking photographs when I could, I did research at the House of Local History and through other organizations in Williamstown and the area. I was able to find compelling photographs to recreate from the late 1800s and early 1900s. As the weather improved during late summer, my project began to take shape and I now have close to 50 displayable images, pared down from a selection of nearly 3000 originals. Some show change that has taken place in our region, while others illustrate the undisturbed beauty that still characterizes much of New England. I will collaborate with Keith Kantack, who worked on a similar project based in the White Mountains.
Alessandra DeMarchis ’10 & Corey Watts ’10
Last summer, CES sponsored our internship at the Oxford Clinical Research Unit (OCRU) in Kathmandu, Nepal. For researchers in tropical disease, Kathmandu has earned the nickname the “enteric fever capital of the world.” Commonly known as typhoid, this sometimes deadly disease is spread primarily through contaminated drinking water. OCRU microbiologists are focusing on strategies for treating and preventing typhoid outbreaks. We participated in an effort to track the environmental factors contributing to the epidemic. It is thought that the city’s aging sewer system allows polluted water to leach into groundwater, a hypothesis the OCRU seeks to prove by culturing fecal microorganisms from public water sources. The dedication and ingenuity of the Nepalese researchers we worked with inspired us to reexamine the link between the environment and human health.

Kathleen Durante ’11
Last summer I had the unique opportunity to work with a Pediatric Environmental Health Fellow in the Pediatric Environmental Health Specialty Unit at Mount Sinai Hospital in New York City. The Pediatric Environmental Health Specialty Unit (PEHSU) is part of the Department of Community and Preventive Medicine at Mount Sinai. The PEHSU consists of a team of experts, including pediatricians in environmental health, pediatric social workers and industrial hygienists. Their mission is to “provide consultations for children with toxic environmental exposure and diseases of suspected environmental origin.” They provide clinical consultations and education to families, health care professionals, public health officials, and community organizations on concerns regarding children’s environmental health and suspected exposure to environmental toxins. They respond to calls from the community on cases related to anything from environmental tobacco smoke and mold to toxic waste and heavy metal poisoning.

While at the PEHSU I worked on a qualitative research project that involved focus groups with health care providers in the East Harlem, New York area on the topic of health risk from extreme heat events. The goal of our study was to determine the knowledge and actions of health care providers regarding climate change and projected health effects by exploring the central question: what is the relationship between New York City (specifically in East Harlem) health care providers’ understanding of climate change science and predicted health impacts and their sense of personal and professional relevance and motivation for action? We explored the relationship between health care provider beliefs, knowledge, and personal experience of heat waves, with their motivation for personal carbon footprint reduction, clinical inclusion of relevant health topics and public health outreach, and legislative advocacy. We acquired input regarding current heat health messages for at-risk seniors in order to provide input on such messaging for practice guidelines for community-based organizations, health care providers and public health agencies.

Andrew Gaidus ’11
I spent six enjoyable and productive weeks last summer working as an intern for the Williamstown COOL Committee, a group of volunteer Williamstown residents committed to reducing the town’s CO2 emissions in an effort to fight global climate change as well as set an example for other towns across the country. The COOL Committee joined the Cities for Climate Protection Campaign in 2001. Shortly afterwards, they conducted a town-wide Greenhouse Gas Emission inventory, established a goal of a 10% reduction by 2010, and created an Action Plan to accomplish this goal.

My work as an intern for the COOL Committee focused mainly on two tasks: preparing the COOL Committee for the 2010 CO2 emission inventory and quantifying the emission reduction actions that have taken place to date. The process of calculating an entire town’s emission levels is fairly involved and I spent much time summarizing and understanding the original baseline calculation process by going through the old COOL Committee files, researching different software programs that could be used to calculate a town’s emission levels, and writing a methodology to make the data collection process much easier come 2010. The second main task I had this summer, was trying to quantify the actions outlined in the Action Plan to see where the town has been most successful and where the town can improve. This was done in a series of excel spreadsheets that calculated the CO2 emission reductions that are attributed to each action on the plan. I found my work with the COOL Committee to be an extremely rewarding experience, and I hope that I was able to help them in reaching their goal.

Daniel Gura ’10
I spent my summer interning at the Carrboro Planning Department. I worked on a number of projects including the resolution of town parking issues and GIS mapping. The summer began with work involving light pollution in Carrboro. Carrboro’s goal is to do their best to get the stars to shine as brightly as they used to, so I worked to revise the outdoor lighting standards. I moved on from that project to one that dealt with parking and traffic congestion in the town – congestion that is likely to worsen with the addition of four new commercial developments. I examined various options and performed a cost/benefit analysis of each. Midway through the summer, I took a break from parking and lighting to work on GIS mapping. While learning on the fly how to use GIS software, I created a visitor-friendly map of the downtown business district for Carrboro citizens. I also began geo-referencing historical images of the town, which will be used to show how it has changed over time, and will also be used to guide future conservation and development in the area. The variety of projects gave me a broad view of what a town planning career entails and will help guide me down the path of life.
David Hanson ’11
Alaska and New England have many similarities despite their geographic differences. While New England has a rich history of agriculture and industrialization, it was once a new frontier much in the same way Alaska is the Last Frontier. New England held many natural resources, some of which were mismanaged. Alaska is also rich in natural resources, many of which are being currently developed and also being mismanaged. This summer I worked on large sculptures that were about New England and Alaska and thinking about the connection between the two. The first piece called House Anchor posed the idea of how modern buildings in Alaska lack the history and weight of the homes and buildings in New England. My second piece, Portage, thought about the use of the sea and how fast the land changes in Alaska, and what that would mean to a coastal New England town. The third and final work played on the idea of where Alaska is going. By using found objects that were completely moveable and urban I tried to reform the connection with the city that denizens of Anchorage are losing as the city grows. This piece is also accompanied with notes and sketches that explain these ideas further. I will show smaller versions of each sculpture in the spring, as well as drawings, notes and source materials. I appreciate the support of Mr. Paul Goren and Williams College.

Allegra Hyde ’10
With my grant from the Williams College Center for Environmental Studies I created a short documentary film about Maine’s Hundred Mile Wilderness—which is the northern hundred miles of the Appalachian Trail and its longest stretch of backcountry. I was interested in examining how the region’s status as “wilderness” is being challenged, as well as how, in turn, that status challenges hikers. My film is based in my experience hiking the trail this summer with my dad, and also incorporates interviews with through hikers, section hikers, employees of the Maine Appalachian Trail Club, and Maine residents. When Henry David Thoreau encountered the Maine woods, he described it as “an undone extremity of the globe.” In my film I tried to show how the Hundred Mile Wilderness is becoming increasingly accessible to all sorts of people, and why leave-no-trace ethics are subsequently vital for the preservation of the region.

Keith Kantack ’11
Through the generosity of CES, I was able to spend several weeks last summer on a creative endeavor photography project in New England, as well as a few other places. The project partially focused on the rephotography of scenes that were painted or photographed in the past. This technique provides a visual representation of the development of the landscape in the past century and a half. In some places, development turned out to be negligible, while other scenes showed extensive reforestation or, more discouragingly, the emergence of a strip mall, housing development, or any number of scars upon the landscape. This part of the project required visits to historical societies in the White Mountains and Coast of Maine, and some help from private collections. I also worked on the project in Italy, where most things have remained unchanged for many centuries. In Italy I focused mainly on making displayable landscape photos without consideration of the development of the land, something I also worked on in New England. I was fortunate enough to meet world-renowned landscape photographer Andrea Rontini, who was a very nice and accessible gentleman. Mr. Rontini gave me several tips for making photographs, told me some locations to shoot, and signed a few prints for me. In June, the Mount Washington Valley (where I live) received measurable rain 27 out of thirty days. This caused the project to stumble out of the gate, but the later parts of the summer allowed for a nice recovery, and the portfolio has taken shape.

Kelsie Meehan ’11
Last summer, the Williams Center for Environmental Studies funded my work as liaison between Peace Valley Farm, a small sustainable farm in South Williamstown, and Williams Dining Services. I divided my time between the farm and the dining hall kitchens and offices. In order to maintain the College’s practice of buying local ingredients, I helped facilitate communication about produce availability between the farm and school. In hopes of increasing student awareness about the benefits of supporting local, sustainable agriculture, I created over fifty laminated signs with photos of Peace Valley Farm to be used to label the local produce being served in the dining halls. I hope that my efforts this summer will help to maintain the mutually beneficial relationship between the farm and our college.

Henry Montalbano ’10
Last summer I conducted fieldwork in several neighborhoods in the District of Columbia in order to collect information and data about peoples’ energy use and their awareness of the District’s recently adopted sponsored-energy programs. Working with a representative from the D.C. Chapter of the Sierra Club and an employee of the EPA, I drafted a survey, selected
targeted neighborhoods, and interviewed and passed on information to a hundreds of residents. The information gathered was useful to our understanding of how these programs translate into peoples’ homes and affect their economic situations. In addition, I met with the Mayor's Green Team to offer information about my experience and the specifics of my survey for their own projects that summer. Overall, it was rewarding and productive experience that enabled me to better appreciate and learn about the inner workings, politics, and people of my own city.

Marissa Pilger ’11
I spent ten weeks last summer working as an intern with the Williamstown Rural Lands Foundation at Sheep Hill. My ultimate goal for the internship was to learn more about the landscape and wildlife of the Berkshires—little did I know I’d end up achieving so much more. Throughout the summer I was able to explore towns and hiking trails I had never before visited. I can now identify more Northeastern plants, birds, and butterflies than ever before. I helped out with several children’s programs over the summer where I encouraged kids to look more closely at nature and by doing so I myself observed nature in a new and exciting way. I led Overland students on splash hikes and pond explorations where I showed them how to identify aquatic invertebrates and salamanders, thereby solidifying a whole new wealth of information in my own mental databank. Through creating educational displays I learned about butterflies, fireflies, and the history of Sheep Hill and its previous owners, the Rosenburgs. On expeditions around the Berkshires I learned about the role of land trusts and the obstacles they are constantly facing. I also helped with community programs such as the annual Firefly Hike and an ice cream social. I learned more about the landscape and wildlife of the Berkshire area last summer than in my past two years on campus. I’m so grateful I had the opportunity to spend the summer at Sheep Hill.

Anthony Raduazo ’11
As an outdoor leadership intern for the Green Mountain Club, I observed how a conservation organization operates at a variety of levels. While shadowing Dave Hardy, the field director of the Green Mountain Club, I got a glimpse of the organization, planning, and politicking that lies behind every project that the trail crews or caretakers undertake in Vermont. After spending time working on the managerial side of the Green Mountain Club, I worked in the field as a trail crew leader of the Volunteer Long Trail Patrol. As one of three crew leaders, I was responsible for organizing and leading the volunteers in wilderness areas in Southern Vermont. In July, my trail crew rebuilt the Old Job shelter off of the Long Trail in Mt. Tabor, Vermont. We also installed water bars, stepping-stones, and drainages to reduce erosion along the Long Trail. In August, I worked as a caretaker at Little Rock Pond—a beautiful lake nestled among the mountains of Danby, Vermont. As a caretaker, my job was to reduce the human impact on the area as much as possible and educate hikers about the “Leave No Trace Principles.” The internship was an incredible experience and it gave me a unique chance to witness the shortcomings, the successes, and the triumphs of our nation’s oldest hiking club as it attempts to preserve the Green Mountain National Forest for years to come.

Rachel Savain ‘10
During the summer of 2009 I interned with a non-profit organization, Sustainable South Bronx, located in Bronx, New York. I researched the organization’s green-job training program, The Bronx’s Environmental Stewardship Training Academy. The 14 week program aspires to prepare unemployed and under-employed populations for careers in energy retrofitting and ecological revitalization. Initially, my main task involved helping to expand the employer partnerships for the building retrofitting part of the Academy, called Best for Buildings, by collecting information on the various companies, in particular what qualities they look for in employees. Later, I began to focus on my research by learning more about the way the Academy functions, conducting interviews with the staff, and even volunteering with some of the graduates of the Academy. Thanks to this opportunity, I was able to experience and observe the inner-workings of a green-job training program within the non-profit sector as well as observe the organization’s impact on the surrounding community.

Chandler Sherman ’11
I had an internship last summer with West Harlem Environmental Action (WE ACT for Environmental Justice) in New York City. Environmental justice is the movement to alleviate the environmental burdens disproportionately borne by communities of color and low income. My internship focused in particular on climate justice, the movement to ensure that the voices of those that will be hit first and worst by climate change are heard in policy debates. Much of my summer was spend fighting the American Clean Energy and Security Act, a weak cap-and-trade-bill that passed the House of Representatives in June and will be debated in the Senate this fall. I created informational materials on cap-and-trade, climate justice, and the climate bill in Congress. Additionally, I helped my supervisor coordinate the Environmental Justice Leadership Forum on Climate Change, a coalition representing 37 environmental justice organizations nationwide. I learned both about the inner workings of a small non-profit
as well as the process of creating, amending, and finally passing a bill in Congress. In addition to my deskwork, I daily breathed, smelled, and saw the environmental injustices burdening those living in the dirty, polluted, asphalt-covered neighborhood in the South Bronx I worked in.

Connor Stern ‘12
For my internship at the Berkshire Regional Planning Commission in Pittsfield I put together a report on energy use in Berkshire County. The goal was to determine how much electricity, natural gas, propane, heating oil, gasoline, and diesel county residents use in a given year and compare this use to other counties, the state of Massachusetts, and the entire country. While utility companies keep some of the data I needed (for electricity and natural gas), for many energy sources I had to estimate use based on various regional trends. After gathering data on energy use I was able to calculate Berkshire County’s annual greenhouse gas emissions, which I also compared to emissions from other areas. The Berkshire Regional Planning Commission will use this report as a benchmark measurement for energy use in order to create a regional energy plan.

Jennifer Rowe ’11
I spent the summer interning for Himal Prakriti, an organization in the Munsari, an area in the Gori River valley of the Indian Himalaya. Himal Prakriti is a small NGO that adopts a livelihoods-based approach to conservation. I came with an interest in continuing a GIS project on vegetation in the Munsari area. To this end, I identified unknown vegetation patches visible in a satellite image by hiking to the areas and GPSing their coordinates. I also had a goal of learning about how land could be managed to support forest-dependent rural lifestyles of the area. I collated a survey for Sarmoli Village on the use of forest products with the help of Rekha Routela and Basanti Rawat, two women I stayed with in Munsari and then analyzed the data. I also learned about local agriculture first hand by participating in rice, millet, and kidney bean planting and staking, and by staying with a farming household where I helped out with weeding, cooking, and taking care of the livestock.

Jack Rudolph ’11
Last summer I interned for Environmental Defense Fund at their branch office in San Francisco, California. Environmental Defense Fund (EDF) is a non-profit environmental advocacy organization that aims to use "strong science" to promote economic market solutions to environmental problems. During my internship, I was able to meet and engage with the many different types of environmental professionals who work for EDF including environmental lawyers, scientists (biologists, ecologists, chemists, geologists, climatologists, lots of -ists), management professionals, and economists. As an intern in San Francisco, I worked closely with EDF’s California Water Team on issues of water supply, conservation, storage, and use, working on spreadsheets, summarizing policy, and attending lots of meetings. I learned a lot about the world of NGOs and environmental politics, not to mention more than I knew existed about California's delicate balance of scarce water resources and enormous agricultural production.

Taida Smailhodzic ’12
Bosnia and Herzegovina has one of the greatest hydroelectric potential in Europe. The potential annual production of this country is 5555, 4 MW, out of which only 48. 5% is used. For a decade, Europe has experienced a great problem of energy dependence, and including Bosnia, almost 50% of the energy used in Europe is imported. Bosnia and Herzegovina represents a great source of electric energy for Southeastern Europe, where most of the countries already used up to 90% of their hydro energy sources. My eleven week internship with a Bosnian Non-Governmental Organization FONDEKO, researched the question of increasing the production of hydro-electric energy on Neretva, one of the largest rivers in Bosnia and Herzegovina. This investment program worth 573 mil € involved building three new hydro-electric plants in the upper flow of Neretva exclusively for exporting purposes. FONDEKO designed this program as a team research on the environmental and economic, short term and long term, cost and benefit analysis of this program. It was the first program of its kind supported by the and a number of others local NGOs, and it presented a unique chance for 20 students to work with some of the biggest experts in environmental protection in this region.

Laura Staugaitis ’11
I spent my summer in Berkeley, California at The Cheese Board Collective. This institution of the famously left-wing city on the famously left-wing coast convinced me that alternative models such as the worker collective can also be relevant and successful beyond such a supportive and like-minded community. As the first intern in the collective's forty-one-year tenure, I worked alongside these bakers of bread and mongers of cheese (over three hundred varieties from around the world), talking with them about the business, and getting to know them both as worker-owners and as individuals. The store sells consistently high quality cheeses to a wide and loyal customer base, and uses mostly organic ingredients in their abundant all-vegetarian bakery items. The opportunity to spend time outside the Purple Bubble, observing and participating in a community of worker-owners and shoppers of astonishing diversity, has inspired me to embrace the ideals of worker collectives and transform them into a reality when I pursue my post-graduation profession.
Julian Suhr ’11
Last summer was a summer of almost equal parts learning and working during my internship with the Hoosic River Watershed Association (HooRWA for short, pronounced Hoorah!), and the working that I did was in itself a form of learning. Starting with the projects accomplished, I mentally broke things down into two categories: River PR and straight-up River Work. River PR consisted of the things that I did to raise awareness about the river, which leads to greater appreciation of the river and therefore conservation (if people see the river as a living thing, full of animal and plant life and capable of being hurt, then they would be less likely to dump into the river in sections where it is less pretty. Knowledge is conservation). A surprising amount of work falls under this category: maintenance of trails, working with campers and other kids, working on project proposals for bike paths and flood chute greenery, and helping with the set-up for the Hoosic River Ride, a bike ride through the watershed. There aren’t as many projects relating directly to the river as one would expect: I looked at a few dam removal projects and took photographs and GPS coordinates of sampling sites along various rivers and tributaries in the watershed to help gather more site data for HooRWA’s records. But, really everything relates to the river: one of the major things I learned this summer. All water in the watershed eventually flows to the Hoosic, making it important to keep most everything clean. Any kind of recreational trail near a river lends itself to opportunities for learning. Awareness of our actions is key. But I learned much more than that this summer. Every trip through the woods or hills brought up new bits of local history and new information about local species. I learned my way around Western Massachusetts, and now can give directions to tourists. And I learned quite a bit about the workings of a nonprofit, namely that things progress slowly, which can be dispiriting if you don’t believe passionately in what you’re working for. But everyone involved is in it for the long haul, and they’ll stick to their guns as the workings of government and public indifference make an uphill battle. It’s slow work, which was a bit frustrating for me as an intern. I wish I could have done more work on some of the bigger projects, but eight weeks simply wasn’t enough. But I helped out the best I could with trail work and day camps, and I’ll take my knowledge gained about the Berkshires and the workings of nonprofits as further tools for action. And who knows, maybe I can help rouse some student support for that proposed bike path.

Josephine Warshauer ’11
The perfect introduction to environmental health was, for me, an internship at the Centers for Disease Control and Prevention (CDC) in Atlanta, Georgia. I worked at one of the centers, the National Center for Environmental Sciences (NCEH), in the Office of the Director at the Division of Laboratory Sciences (DLS) for eight weeks this summer. My supervisor, Dr. Mary Mortensen, and the DLS gave me the opportunity to experience a variety of areas in the Division.

My main project focused on a large DLS publication, the National Report on Human Exposure to Environmental Chemicals (the Report), which supplies scientists, physicians, and health officials with a summary of the U.S. population’s exposure to environmental chemicals found in air, water, soil, food, or other media, such as consumer products. The Report serves as a record of the concentrations at which those chemicals are found in our bodies, as tested in blood and urine. I was able to take part in the process of creating the fourth edition of the Report, which will be released sometime before 2010. My task was to evaluate the chemicals tested for and recorded in the Report, according to chemical data and the published criteria, to see if any chemicals were eligible for removal from future editions of the document. After making calculations, generating lists, and editing my draft with my supervisor, I created an internal document sharing my statistical analysis, Biomonitoring Trends: Review of 1999-2004 NHANES Data. Its creation was an invaluable learning process. In addition to working on the Report, I was also able to explore the laboratory aspect of public health by helping to test an Iodine Field Test Kit, touring laboratories such as the Tobacco Lab, and speaking with CDC scientists. Over the eight weeks I was at CDC, I had conversations with a number of experts in their fields, including Dr. Besser, a Williams alumnus. He worked as the interim director of CDC from January to June. While at CDC, I saw a government organization in transition, as the new director, Dr. Frieden, joined CDC in June 2009. My time at CDC was eye-opening and transformed my understanding of public health. I am grateful for the experience, which could not have been possible without funding from the Williams Center for Environmental Studies. Interning with the CDC is something I would suggest to anyone hoping to enter into public health.
Campus Environmental Advisory Committee
by Jessica Clark ’10, Co-Chair

This year, the Campus Environmental Advisory Committee (CEAC) focused on incorporating sustainable principles into dining, landscaping, and athletics. Throughout the year, sub-committees within CEAC worked to gather information and develop policies for improving sustainability in those three areas. To that end, the committee frequently invited staff involved with ongoing or suspended projects (e.g. Weston Field and Stetson-Sawyer) to discuss their projects.

These efforts were complemented by the sustainability workshop organized by committee members in January, in collaboration with the Luce Committee and Zilkha Center. The workshop brought together students, faculty, and staff to envision the future of sustainability at Williams. The policy recommendations that emerged from that discussion will be important guidelines for the committee next year.

In addition to these ongoing efforts, CEAC endorsed a Building Standards Policy for the campus and prepared the policy for review by Senior Staff, as well as advised the administration on solar energy and Renewable Energy Certificate development issues. Towards the end of the year, committee members worked with the PaperCut Committee, the Library, and OIT in implementing and responding to issues in the PaperCut program, and interacted with the Faculty Steering Committee in clarifying the mission and structure of CEAC.

Katherine White ’11

After a lot of solitary brainstorming, a flurry of emails, and several cups of coffee with Sarah Gardner of the Center for Environmental Studies and Jane Canova of the Center for Foreign Languages, I decided to truly follow my gut this summer and pursue a research project on artisan cheese! Having worked on several small, organic farms in the past three years, I have become increasingly interested in the environmental, economic, and cultural significance of local foods in the United States—especially in my home region of New England. Cheese was something new: I did not know anything about it (except that I loved it!) and was curious about the sudden spike of interest about cheese in foodie journals and blogs. I spent the summer following my nose to dozens cheesemakers, cheese shops, and even cheese institutes—both in New England and in Spain—testing, interviewing, and taking photos. The project morphed from learning about the simple process of cheesemaking to observing a deeper connection between traditional, old world styles of cheese and the relatively infant, yet edgy and innovative, new artisan cheese industry in our nation. Although seemingly trivial to many people (including me, three months ago!), artisan cheesemaking in our nation actually manages to capture many of the problems of industrialized agriculture as well as many of the potential solutions, such as scaling back to smaller, lower impact, regional economies, that our nation faces. Thanks so much for the opportunity to learn more about what I love this summer, and I hope to continue traveling and tasting for many years to come!

Funding for the summer internship and grant program is provided by generous support from the John H. Ohly Fund, the Miranda Heller 1978 and Jerry Tone 1977 Environmental Student Research Fund, the W. Conant Brewer ’18 Fund, the Thomas C. Black ’80 Fund, the Donald B. Miller Fund, the Tom Hardie ’78 Fund, the Bernard M. Schuyler Fund and the A.W. Mellon CES Fund.

Committees and Student Organizations

Campus Environmental Advisory Committee
by Jessica Clark ’10, Co-Chair

Purple Bike Coalition
by Crosby Fish ’10, PBC Student Manager
and spring to students, faculty, and staff whose bikes are in need of work in order to promote cycling as a form of transportation both at and after Williams. It is much more pleasant to ride across campus without mechanical problems, and it’s nice for students to be able to get a flat tire fixed, as the alternative is often to leave a bike unused for the rest of the academic year.

The Center for Environmental Studies (CES) hires several experienced student mechanics each year to staff the shop. As a well-equipped shop, the Purple Bike Coalition often attracts people who have worked in bike repair stores in the past, and they enjoy the opportunity to both practice their hobby and serve other people affiliated with the College. David Hansen, who will be the student manager of the Purple Bike Coalition for the 2010-2011 school year, has been employed for several summers at a bike shop in Anchorage, Alaska. The Mark Hopkins bike shop maintains an inventory of inner tubes, chains, oil, and shifter cables. As a student-run organization, it gets funding from College Council to help pay for supplies which can be used to provide repairs at no cost.

This past year has been a growing year for the shop. It had scheduled hours for the first time ever, and made a constant effort to publicize those hours for students and faculty. This spring, the Purple Bike Coalition and CES coordinated to organize a bike drive. Students and faculty donated unused bikes, and the Williams Safety and Security has also agreed to contribute discarded bikes found at the close of the academic year. The bikes will be repaired before being sold at low prices to students in the fall to both keep the bikes in use and to raise money for additional shop supplies. Hoping to build on this year’s progress, the Purple Bike Coalition has several goals for next year. First, its organizers will continue to try and expand its presence on campus. They also hope to change the focus slightly, adding an educational aspect by teaching people how to perform the repairs that their bikes require.

**Thursday Night Group, aka TNG** (or The eNvironmental Group) by Vera Cecelski ’13

TNG has had a busy year, tackling issues of student environmentalism on several fronts. The politically focused subgroup of TNG worked on national and international climate change activism, and started the year by doing college-wide call-ins to senators asking them to support and strengthen the climate/energy bill making its way through the senate. We then worked on a global effort called the 350-Day of Climate Action, started by Bill McKibben of Middlebury College. We arranged for students and parents to call or write letters to their senators and representatives in support of a strong climate bill, signed up volunteers for the upcoming Climate Justice Fast, and ran a photo petition to be sent to legislators, asking for a cap on carbon levels in the atmosphere at 350ppm, the boundary point between safe levels and significant, dangerous warming. Several TNG members also helped with a couple community-wide 350 events.

After 350 Day, we kicked off the Climate Justice Fast in coordination with others across the world, which was meant to raise awareness about the plights of those that would be harmed by the dangers of climate change if significant action was not taken at the COP15 in Copenhagen. Four students fasted for seven days, and over fifty students and professors participated in a rolling fast in which each participant fasted for 24 hours over a seven-week period culminating at the end of the Copenhagen negotiations on December 18.

During the spring semester, we collaborated with the Leadership Campaign, a project of Massachusetts Students for a Just and Stable Future, to promote clean electricity legislation on the state level. Students from Williams repeatedly visited the Boston Statehouse to lobby in favor of a bill pushing the state towards 100% clean electricity by 2020, and several engaged in civil disobedience to protest the use of dirty energy.

On campus, we focused on student environmental awareness and energy use. In the fall, Winter Blitz, a popular campus service initiative to weatherize community homes, was again very successful. In the spring, we highlighted two weeks as the focal moments of our environmental push on campus: “Do It In The Dark” and Earth Week. “Do It In The Dark” was a campus-wide energy competition to reward reductions in energy use in the dorms, although the week also featured education about the importance of energy conservation, talks with each freshman entry about ways to reduce consumption, and the distribution of drying racks to students as part of a free loan system to held reduce dryer use. One of the most popular parts of this week was the nightly “Do It In The Dark” dinners, which showcased sustainable foods while students ate in candlelit dining halls. Earth Week featured similarly sustainable meals, a series of environmental speakers, documentary screenings, call-ins to target anti-strip mining legislation, letters to local representatives, and opportunities to explore the outdoors, like guided nature hikes and canoe trips.
Finally, this year showcased a commitment to sustainable food among the students of TNG. We consistently worked with Dining Services to create a solid working relationship, which has resulted in a new program featuring reusable to-go containers in Paresky and reusable Grab-N-Go bags.

Williams Sustainable Growers

by Sonja Thalheimer ’13

A good friend of mine almost didn’t come to Williams because she really wanted to be at a school that had a farm, garden, or even fruit orchard. Her mom, though, convinced her that that wasn’t a fair reason for choosing a school—and if a food producing entity was that important to her, then she should just start one when she got to school.

This didn’t happen right away—freshman year began, we settled in, and slowly became involved with food related issues, something I’m quite passionate about. By January we were involved with screening films for the Farm Film festival and heard from two other students who had been working most of the year to actually create a garden on campus. Around February, the Williams Sustainable Growers were officially formed, and I was absolutely delighted and honored to be a part.

It’s amazing to look back and see how much we’ve accomplished in these few months: from not even knowing where exactly the garden would be, we now have two beautiful gardens. Not only are the gardens gorgeous, they also have been incredibly successful. This spring we had dinners with the food from the garden (stir-fried chard with garlic, bok choy, lots of salad greens, delicious radishes, rhubarb cobbler…) and we provided vegetables (spinach for a quiche and salad greens) for Dodd Dining Hall. Success is not measured only in the food we’ve produced, but also in the knowledge we’ve been able to pass on and the experiences we’ve offered students. We’ve been able to teach so many people about the process of growing food, and offered so many people the opportunity to play/work in the dirt in a way most classes don’t provide.

One friend of mine was absolutely delighted to water plants for the first time, and so scared that she wouldn’t give them the right amount and might end up hurting them. Someone else expressed concern when planting salad greens that the seeds were really too small to produce anything. I love that this garden can show the whole process that goes into making food.

Throughout the whole process the students have been amazingly supportive. For our first gardening work days, when we initially began constructing the raised beds, at least 40 students showed up over the course of the day, some staying well past when we had estimated we would finish up by just to help complete the project. Other students came even during reading period to plant and work more in the garden. When we started our standard Saturday morning pancakes breakfasts, followed by work parties until lunch, we immediately had lots of volunteers to be involved with the pancake making.

I’m glad to be involved with the garden for many reasons. First and foremost, having a garden is something vital, and I’m so glad to have re-established a garden at Williams. I hope food, food culture, and sustainable agriculture will soon become integral parts of a Williams education. The garden has also taught me a lesson I’ve learned many times—if you really want to accomplish something, you can. We chose to plant a garden and, with some fairly intense dedication and wonderful help, we were able to reach that goal.
Elizabeth J. D. Baker ’00
Ten years out and I’m doing the same mix of environment and music that I did at Williams. (Beware, undergrads: your interests may not change!) I am vice president of the Resource Renewal Institute in Marin County, CA and help run the non-profit opera company (OpenOpera.net) that I co-founded in 2008 to bring free opera to Bay Area parks. I advocate for comprehensive, long-term environmental policy known as Green Plans and try to tackle fish, water, and climate change issues as well. A recent highlight was working closely with Nobel Peace Prize Laureate Wangari Maathai’s as part of her delegation to Cop15. I would love to connect with any CES folks passing through the Bay Area and encourage you to check out RRI.org – and come hear a free outdoor opera while you’re at it!

Michael Blanding ’95
I’ve been working since graduation as a journalist, often covering issues with an environmental slant for magazines including The Nation, The New Republic, Boston Magazine, and the Boston Globe Magazine. My recent book, is an expose of The Coca-Cola Company around health, human rights, and environmental issues around the world, and will be published by Avery/Penguin on Sept. 16. Several chapters deal with Coke’s water usage, including a chapter on bottled water and recycling, and chapters on water depletion and pollution in Mexico and India. The book grew out of a cover story I wrote for The Nation and has been some four years in the making. For the reporting, I traveled to Colombia, India, Mexico, and, um, Texas—not to mention spending a fair share of time in Atlanta. And I definitely found myself hearkening back to lessons at Williams as I investigated issues such as groundwater contamination and environmental law. It feels good now to have the book finished so I can focus on fun stuff like getting the word out rather than spending all those late nights writing and editing..... www.thecokemachine.com

Elissa Brown ’09
Since graduation, I’ve been doing a project called “Hands-on Earth,” where I’ve been traveling and exploring innovative forms of experiential environmental education around the globe. I volunteered at a forest kindergarten in Germany, a bilingual environmentally-focused K-11 school in Monteverde, Costa Rica, and I’m currently interning at NaDEET -- an environmental education center in the desert wilderness of Namibia!! I write this as I wait for my cinnamon rolls to rise, before I SOLAR COOK them!!!

Heather Brutz ’02
I work as the Field Coordinator for Clean Energy Works, a nationwide coalition of groups working to pass federal comprehensive clean energy and climate legislation.

Brian Burke ’02
I have spent the last several months forging close relationships with old farmers, street-corner fruit vendors, wild-berry wine makers, and whole-grain bakers in Medellín, Colombia, where I am doing anthropology doctoral research on alternative economies, the cultural and subjective changes necessary to make them work, and what this tells us about the cultural power of the conventional state-capitalist economy. One of the most important lessons so far is that the best way to avoid the most polluted air in Latin America is to simply not inhale. Come visit if you're in the neighborhood (bburke@email.arizona.edu)... but bring something to barter!

Allen Doyle ’83
I am working as sustainability manager at UC Davis, which means I am a resource planner. This is an amazing experience in the UC system, even with the drastic budget cuts we suffer. I find allies in administration, students, faculty and staff, who understand the need for conservation at every level, from our power plant to our light switches. Our office of four builds relationships, policy, and capital investments across design and operations, with the huge and important goal of reaching carbon emissions neutrality ASAP, zero landfill by 2020, and many purchasing policies that push our vendors. We are developing a campus addition for 3,000 students with 500 homes that we hope will be net neutral to the grid, with conservation, biogas, and PV.

As a former Earth Scientist, I bring laboratory expertise that empowers energy conservation in the campus’ biggest consumer. Our lab buildings consume about 2/3rds...
of campus energy. We are building a "Green Labs" campus network across the US with all the UCs, Harvard, Stanford, Emory, UVM, Arizona State, Notre Dame, Cal Tech, for example. While Higher Education is a small energy consumer compared to industry and commercial buildings, I hope our example will support aggressive conservation measures needed while maintaining quality of life and landscape.

John Dye '93
I am approaching two years of service as Staff Counsel at the California State Lands Commission. I have been charged with providing legal counsel on climate change and renewable energy projects proposed for lands under the Commission's jurisdiction (school lands and submerged sovereign lands), so this includes geothermal, wind, solar, and wave energy projects.

With respect to the latter, I have been representing the Commission on PG&E's Humboldt Working Group for the proposed WaveConnect project (http://www.pge.com/myhome/environment/pge/cleanenergy/waveconnect/), a 5 MW test site for wave energy technologies. Pretty interesting stuff, although the permitting gauntlet can be quite harrowing (read: costly, time-consuming). In order to avert possible climate catastrophe and jump-start green energy, we either need national legislation (which seems less and less likely), or robust GHG enforcement from the EPA.

Chris Eaton '05
I just defended my master's thesis on juvenile salmon foraging patterns in the Columbia River estuary at the University of Washington. I'll be headed the University of Michigan Law School this fall to ideally begin a career in environmental law.

Chrissy (Fletcher) Patrick '02
I am a spokesperson for the National Oceanic and Atmospheric Administration (NOAA), within their Fisheries Service. Normally, that means writing press releases and holding press events and media interviews about fisheries management and endangered marine species, but since the BP blowout, it's been all oil spill, all the time. I live near NOAA and bike to work, and when I'm not in the Gulf as part of NOAA's oil spill response team, I still think about how Jon Weiner (02)'s pro-biking shirt should have said One Fewer Car instead of One Less Car. I'm planning to visit Envi-er Sarah Barger and her husband in San Francisco this summer.

Avalon Gulley '09
This year I joined the Research Vessel Heraclitus, a Chinese junk sailboat, to voyage from Puerto Rico where I was organic farming to the Dominican Republic. I was a full crew member for three very intense weeks which included five days at sea when I got to steer the ship, operate the generator, write in the log book, and perform other exciting and stressful maritime operations. After sweating for a week on the ship anchored off the coast of a little fishing village in the Dominican Republic, my new friend and fellow crew member Marisa and I decided to spend a weekend exploring Santo Domingo before flying to Guatemala to meet my Williams friend Elissa and volunteer at an eco-village. Unfortunately, our hopes for days filled with yoga classes, all-you-can-eat vegan buffets, and sweat lodges were dashed the first night we arrived at the "eco-village" which apparently only existed as a future possibility in the minds of these labor-seeking landowners. Instead, Marisa, Elissa, and I made the best of our month in Guatemala by pursuing such endeavors as hiking a volcano and roasting marshmallows over lava, learning how to make chocolate from cacao beans, weaving scarves using traditional Mayan back-strap looms, visiting a friend's Peace Corps family in a highland mountain village, and enjoying the flowering "eternal spring." I've posted pictures of my time on the Heraclitus and in Guatemala at www.avalontravels.shutterfly.com.

At the beginning of May I retired from my Latin America adventures and re-adjusting to life in the USA and getting ready for my Americorps position at Camp Hill Village on June 1 (www.camphillvillage.org). I will be living in a 200-person community in rural New York, 2 hours north of New York City. I will be managing a household including four adults with special needs and two co-workers, doing lots of cooking and working either in the biodynamic vegetable garden or in an arts/crafts workshop.

Charles Kubert '81
I work as a Project Director for Clean Energy Group and Clean Energy States Alliance, a small NGO based in Montpelier VT (although I live in Chicago). The mission of Clean Energy Group is to foster innovations in renewable energy policy, finance and technology. Clean Energy States Alliance acts as a technical advisor and quasi trade association to the state clean energy funds (such as the Massachusetts Clean Energy Center). Much of my work centers around the dissemination of “best practices” around state programs and policies to support different renewable technologies—for example, renewable portfolio standards, fuel cells and distributed wind energy. I work with Mark Sinclair who I believe is an alumnus of Williams.

Eric Laschever '78
I practice land use law at Stoel Rives in Seattle. In addi-
Jared Oubre ’08

My Peace Corps experience in the Dominican Republic has been nothing short of fun play ground activity. They call me an Environmental Community Development Promoter, but really I create adventures with youth, running around with the wheel barrow picking up litter and transforming banana peals and cow manure into fresh compost for our backyard gardens. We paint world map murals and hike down to the river for the chance to bathe in the charco and knock juicy mangos from the trees above.

What I’ve learned in all this play is that PATIENCE gets things done. When I attempt something alone I realize it is not sustainable because no one else in the small barrio of Ojo de Aguas is learning how to serve their community. It’s not about getting 10 packets of free vegetable seeds from the Department of Agriculture, or planting trees just because, but it’s about empowering others who haven’t been presented with such opportunities. I find the Peace Corps experience is most exhilarating when I am listening, thus I realize I am often learning more about myself and my own habits than maybe imparting ideas upon my community. The other day I learned to sew recycled rice sacks together to create an impenetrable fence around our garden keeping the wandering chicken from eating the cilantro and lettuce. Choco and Josue also taught me that it is also possible to construct a sand lot style basketball hoop from rebar, bolts, and a tree alongside the road. It is so fun to see imagination come to life.

In the end I spend much of my day developing relationships and just trying to be a role model to many boys and young men who don’t have fathers, nor a vision of what they want to do when they grow up. So for now we play and I learn. One more year and we’ll be like actual brothers.

Take a visit to another country and listen to the peoples stories. You will learn so much about yourself.

Dan Golub ’08 is also here in the country with me serving as a Peace Corps Volunteer. I couldn’t be more lucky to have a great Williams friend and runner here with me. We’re hoping to attempt a half marathon... in the tropics.

Will Parish ’75

Last July, the California State Board of Education appointed me to the Curriculum Commission. I serve on the EEI Committee. EEI is the Education and the Environment Initiative which seeks to increase the environmental literacy of all public school students in California (6.2 million students). The initiative is brand new, having been approved in January by the State Ed Board without a single dissenting comment. Very exciting. I continue teaching (8th year) Environmental Science at Gateway High School in San Francisco.

Julie continues to serve as the liaison on the Golden Gate National Parks Conservancy Board, plays competitive tennis, and sits on the board of the K-8 school, Marin Country Day School. Our 23-year old son, Mac, is receiving his Masters in Latin American Studies from Stanford in June. He hopes to work in Latin America in the field of sustainable eco tourism. Our son Nate, age 19, completed his semester of living in Madrid, and will be transferring to Colorado College this fall. He is an avid rock climber.

Tom Perry ’84

I have been teaching Earth Science and AP Environmental Science at Nyack High School (Nyack, NY), and I now have a chance to get back to my roots. This Fall I will start teaching a new course in Botany. I dug out my materials from Hank Art’s classes in the early 1980s, and was impressed once again by the thoroughness of his notes and handouts. Ever since I took Biology 308 at Williams, I have wanted to find a way to explore this subject further...now I get my chance! I spent a week this summer at the Boyce Thompson Institute at Cornell University, learning about the latest research in Plant Science. Now I will find ways to get 12th graders excited about it.

While looking through my old notebooks from Williams, I found Prof. Art’s book about the Sunken Forest on Fire Island. My two sons have never been to Fire Island, so we are heading there this summer. My wife Marjan (Kashef, Williams ’87) is still teaching 5th grade in the Nyack Schools. We have happy memories of CES and Hopkins Forest. Best wishes to all.
Liz Rogers ’91
I have just moved back to the US after spending most of the last decade living in an ecovillage in the north of Scotland called Findhorn. While not fully self-sustainable, they are working hard at moving in that direction and have the lowest recorded carbon footprint of any community in the west. I’ve returned to New England to focus more on singing and will likely settle in the Berkshires. Anyone with questions about Findhorn or interested in getting in touch can do so through www.elizabethrogers.com

Emily Russell-Roy ’06
This summer I am finishing up four years with the Pacific Forest Trust, a land trust and policy organization working to sustain private forests. The main focus of my work has been on climate change policy and emerging markets for carbon offsets—first in California, with the roll-out of the country’s first economy-wide cap and trade bill, and then in the Northeast, where I helped establish a new satellite office for the organization. It’s been a wonderful and rewarding experience. Next fall I will start my Master’s of Science in Natural Resources at the University of Vermont in Burlington, where I’m sincerely hoping to spend more time out in the woods!

Andy Stevenson ’07
Since February ’09 I have been living in Washington, DC and dividing my time between the think tank Resources for the Future and a small climate policy consulting firm called Climate Advisers. I’ve published a few papers on U.S. climate foreign policy with my boss Nigel Purvis which have been well-received in Washington, and have learned equally as much if not more about the critical relationships between Capitol Hill, the administration, NGOs, academia and the private sector in shaping policy. We have focused a lot on REDD/tropical deforestation policy, and played a not insignificant role in helping secure a $1 billion commitment (total 2010-2012) in Copenhagen from the United States for REDD funding. I think I’m finally ready to head back to graduate school and the plan is to apply this fall to start in the fall of 2011 (although I am thinking about heading back to China for one year first to nail down my Mandarin abilities). Have not yet decided whether I will go down the law or PhD track, though.

Richard Travers ’70
Freeaire Refrigeration is a business I began more than 20 years ago. We sell a commercial refrigeration system that I invented and that typically saves about half the energy needed to keep walk-in coolers and warehouses cold. We have our systems installed in places as diverse as the Greater Boston Food Bank, Harpoon Brewery, a 38-store convenience store chain in Vermont, and several cooperative coolers and freezers for Inuit villages in Canada near the Arctic Circle. I have attached an article about me from Vermont Life that gives a pretty good overview. You might also want to go to http://www.youtube.com/watch?v=Hh5-zrNW_N0 to see a video that aired on the Science channel’s Invention Nation series.

Henry Walker ’69
I graduated from Williams before the Center for Environmental Studies became so active. My main involvement at Williams was taking a course on environmental resource policy and writing a paper that compared at the development plans of several communities in the area. (For example, I think I remember noting that North Adams plan called for expansion of the airport, while the plan for Adams called for an expansion of residential housing in the same area.) Since graduating in 1969, I got my PhD in mathematics from M.I.T., joined the faculty of Grinnell College (in mathematics), got my MS in computer science from the University of Iowa, and gradually shifted my responsibilities at Grinnell to computer science. Of course, relatively little of this has a direct impact on environmental students, except that computing folks often generate a great deal of paper. However, I have continued my interested in environmental issues over the years, and I continue to appreciate the updates that you send out.

For example, here at Grinnell, I spoke before the City Council a few years ago in favor of a lighting ordinance that would reduce light pollution. Professionally, I support projects that allow the electronic submission of papers to about 8 annual conferences and allow the reviewing of those papers electronically. Not only does this cut the amount of paper significantly, but it also allows a broad range of reviewers scattered throughout the world. I also support the Web-based database for orders of the local Grinnell Food Coop.

While these and other projects promote environmental quality, my professional work has focused on computer science, particularly computer science education. In this regard, I have worked on a number of projects and collaborated in numerous activities, but the connection with environmental studies is arguably tenuous. For example, I have written 8 textbooks — generating much paper; I am the author of numerous professional articles — more paper; I have worked with a range of national and international groups — still more paper; and I currently serve on the Development Committee for Advanced
Placement Computer Science --- even more paper. In recent years, I have served as Chair of the Special Interest Group on Computer Science Education of the Association for Computing Machinery (ACM), and the ACM recently named me a "Distinguished Educator."
Reunion Weekend - June 2010

On Reunion Weekend (June 12), about one hundred CES alums and their families reunited at our annual picnic in our new (temporary) home, Harper House. Due to rain, we picnicked indoors, but it was a festive occasion nonetheless. Peter Mc-Chesney ’75 organized an alumni roundtable discussion for alums (and some CES faculty) with an interest in renewable energy. It was attended by about 45 people, who got to hear about each other’s work and make new connections in the field. Some photos from the picnic are below.
2009-2010
Center for Environmental Studies

Jennifer French, Director
Sarah Gardner, Associate Director
Drew Jones, Hopkins Forest Manager
Jay Racela, Technical Assistant
Sandy Zepka, Administrative Assistant
Norm Parker, Information Specialist

Field Notes
Sarah Gardner, Editor
Sandy Zepka, Layout & Design
The Williams program in environmental studies allows students to focus some of their elective courses in an integrated, interdisciplinary study of the environment—that is, the natural world, both in itself and as it has been modified by human activity. The program provides students with the tools and ideas needed to engage constructively with the environmental and social issues brought about by changes in population, economic activity, and values.