

An outline of Macalester Colleges progress towards Environmental Sustainability - 1990 to 2008

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In order to successfully facilitate an institution's drive towards environmental sustainability, it is helpful to examine the history of sustainable actions which have provided the foundation for current activity. This paper documents Macalester organizations, activities, and initiatives that students, faculty, and staff have created and undertaken to achieve sustainability both at the school itself and within the greater community. The subsequent sections discuss endeavors that have occurred since 1990 falling within the following categories: Macalester's Environmental Studies Department, student organizations, Facilities Management, Bon Appetite and those which do not fit neatly within any categories. Although we strove to uncover as much information as possible about environmental sustainability work at Macalester, certain information was easier to reveal than others and thus this list is not exhaustive. It appears that the trend since 1990 has been an increase in actions taken towards sustainability, however, it should be noted that even though actions and organizations which existed in the past which did not explicitly act on "sustainability" issues they created the necessary foundations to facilitate the current programs that we describe. Although this document is organized into five sections, many of the sustainability initiatives described have come as a result of the institution, student organizations, and the environmental studies department working collectively.

Environmental Studies

The Environmental Studies Department at Macalester serves as the academic cornerstone of sustainability work at the college. Prior to 1998 Environmental Studies at Macalester was a faction of the Biology Department. In 1998 Environmental Studies became an official program, and in 2004 it became an official department of the college. Disregarding its title over the years, Environmental Studies has always considered itself an interdisciplinary entity which is based on a holistic understanding of environmental issues occurring at the local, regional, national and global level.

The department has propelled sustainable actions over the past decade through, classes, events, newsletters, internships, study abroad programs, student projects, and its interaction with other entities of Macalester College. Due to the flexibility of environmental studies as an interdisciplinary program it is hard to track all of the progress it has contributed towards the sustainability of campus. The Environmental Studies website provides the most comprehensive collection of its work at <http://www.macalester.edu/environmentalstudies/index.htm>. Along with all of the concrete examples of sustainable work this website provides it is important to consider the educational impacts the Environmental Studies department has had on students, staff, alumni, community members, and citizens at large when evaluating its impact on sustainability.

Student Organizations

Since 1990 there have been several environmental organizations active on campus including, but not limited to, the Macalester Ecological Society, E-Funk and the Macalester Greens. These groups have tackled issues such as environmental conservation, environmental justice, and environmental politics. However, the specifics of particular projects that these groups have sponsored have largely been lost to time, although it should be noted that their initiatives, in a time when there was much less student environmental concern on campus than there is now, helped to set up the groundwork that allowed future environmental groups to flourish. In more recent years, particularly following heightened awareness and concern about global warming, student activism at Macalester has burgeoned. Students have funneled their energy into several organizations, mainly MacCares, MPIRG, MacBike, and MULCH. Since each of these organizations has done so much to further environmental

awareness at Macalester and beyond, it should be noted that the list of undertakings below is a brief sketch of accomplishments by student organizations and in way does justice to the wide variety of projects going on at any particular time.

MacCares has been the initiator of a wide berth of projects, and is currently the largest environment group on campus with more than 30 students regularly attending meetings, and more than 20 projects going on at single time. MacCares has been instrumental in creating the Clean Energy Revolving Fund (CERF) where money saved from energy efficiency projects is reinvested back into a fund that pays for future energy efficiency projects, has initiated the development of several green roofs on campus, and has educated the Macalester student body on topics ranging from water privatization to energy overuse. In addition, MacCares has coordinated their vision with local and national environmental campaigns and organizations. Locally, MacCares has worked with groups like the UAW Ford workers to help design a mixed use green development site in the same location as a former Ford plant. Nationally, MacCares has correlated their agenda with that of the Energy Action Coalition, The Sierra Student Coalition, The President's Climate Commitment, and The Campus Climate Challenge. In contrast to MacCares action based work, MPIRG focuses more specifically with environmental policy. MPIRG also hosts educational environmental events, organizes a biannual river cleanup, and sponsors a lobby day at the state capital. MacBike gives students the skills and knowledge to become car-free in the Twin Cities through familiarizing students with bike routes and teaching students bike maintenance. Finally, MULCH maintains a community garden, advocates eating locally and organically, and funds itself largely off of selling much of its produce to Café Mac.

Facilities Management

Macalester's Facilities Management Department has been highly involved in increasing campus sustainability. Efforts undertaken by the department include: (1) purchasing more "green" products, (2) working to increase energy efficiency, (3) improvements to waste management and recycling infrastructure, and (4) engineering more sustainable buildings.

In regards to purchasing more "green" products, the college has been testing green cleaning product lines. Current cleaning products used on campus are Ecolab products, chosen for their reduced impact on the environment. These products are all GreenSeal certified. In addition, Facilities has changed their entire paper towel and toilet paper purchases to 100% recycled products. This change alone has been calculated to save Macalester approximately \$26,000 per year.

Facilities Management has historically looked for ways to maximize energy efficiency in an effort to save money. In conjunction with Macalester's Clean Energy Revolving Fund (CERF), the department is replacing all 32W 4ft fluorescent bulbs on campus with 25W bulbs, which emit the same amount of light but use 1/3 less energy. This project alone has projected savings of \$30,000 annually. Also in association with CERF, Facilities has undertaken renovations on the Cultural House, as well as several of the language houses. For example, all of the water fixtures, toilets, and showers in the Culture House have been replaced with more efficient fixtures; while language houses have been insulated with blown insulation. In addition, Facilities has been working over the years on re-commissioning Olin-Rice (the largest energy-user on campus) to save energy. The lights and vent hoods were placed on occupancy-sensors to ensure that the building is only heating or cooling spaces when needed. The electric motors in the Heating, Cooling, and Ventilation (HVAC) system have also been changed to more efficient variable speed drives. These adjustments saved the college over \$70,000 in energy costs in 2007.

Macalester has also adopted a Zero Waste Policy, and Facilities is working with the college's recycling provider (Eureka Recycling), to act upon this policy. The waste infrastructure on campus has been evaluated by Eureka Recycling and the college, and found that waste generated on campus is 37% recyclable, 36% compostable, 19% trash, and 8% reusable. In an effort to better handle this waste, Facilities completely redid the recycling and waste infrastructure on campus to better facilitate proper collection and sorting. New waste and recycling bins with colored tops were installed in every campus building.

In efforts to engineer campus buildings to be more sustainable, Facilities has worked with student leaders to install two green roofs on campus. These roofs are located on top of the Fishbowl between Doty and Turck halls, and on top of Kagin Commons. They reduce energy costs by insulating the buildings, reducing the urban heat island effect, trapping storm water, and preventing run-off. In addition, the new Institute for Global Citizenship is being engineered to the Platinum Level of the Leadership in Energy and Environmental Design (LEED) program. This represents a dramatic shift in the way that campus buildings are conceived, created, and operated; and the operating costs for this building will be substantially less than a “normal” building of similar size and location.

Bon Appetite

Bon Appétit is a nation-wide food service company which operates Macalester’s cafeteria, Café Mac. The organization is a leader in environmental accountability and in incorporating sustainability objectives into their business. Bon Appétit has launched several campaigns in the past to utilize more sustainable food sources, and many of these have been undertaken at Café Mac. Such programs include: the Seafood Watch, the annual Eat Local Challenge, Circle of Responsibility Program (in which Café Mac began to purchase only cage-free eggs and anti-biotic free chickens), the bi-yearly 100% compostable picnic, initiatives to decrease food waste through education, the Farm to Fork program (initiative to purchase food from within a 150 mile radius of the institution. Café Mac currently obtains milk from a creamery in Hastings, MN, grass-fed beef from a processor in Cannon Falls, MN and local produce when in season. Café Mac is currently striving to obtain a minimum of 10% of all food products from local sources).

Bon Appétit’s latest program, launched in 2007, is called the Low Carbon Diet Commitment. This program aims to highlight the connections between food and climate change and it sets targets over the next two years to make specific changes which will lower the carbon dioxide output connected to the organization’s food sources. Approaching targets at Café Mac include: purchasing all food products from North America by May of 2008, purchasing only water bottled in Minnesota by May of 2008, decreasing cheese usage by 10% by April of 2008, and to begin student cooking classes to feature and promote local dishes and ingredients.

Other Sustainability Efforts on Campus

A wide variety of other efforts are being undertaken at Macalester to increase campus sustainability. One prominent example is the recent signing of the American College and University Presidents Climate Commitment by President Brian Rosenberg. This agreement signifies the college’s dedication to taking steps to reduce emissions of greenhouse gases, with the ultimate long-term goal of achieving climate neutrality. In conjunction with the signing of this commitment, Macalester has hired Suzanne Savanick Hansen as the college’s first sustainability manager. Hansen will be helping to coordinate environmental sustainability on campus, as well as working to make Macalester a leader in sustainability efforts.

Other important initiatives on campus include the People Power Initiative (PPI) Think Tank (www.macalester.edu/ppi/). The PPI is a tool to address climate consciousness and participation across campus. It seeks to integrate efforts within existing programs, as well as invite the participation of new actors. The goal of the PPI is to synthesize all of these campus’s initiatives and efforts in one place, where they can stay informed about one another’s activities in hopes of forging stronger connections between groups. Another example of groups working together towards campus sustainability can be seen in the development of the EcoHouse (<http://www.macalester.edu/ecohouse/index.htm>). This project demonstrates how a house can be renovated for energy savings, with long-term cost savings in mind. It provides an opportunity to try a number of technologies, applicable to any homeowner who would like to have a similarly energy efficient, environmentally sustainable home. The students who live in the house use state-of-the-art materials and ideas to minimize energy consumption and waste. These examples provide just a

sampling of the many innovative endeavors currently being undertaken by Macalester in efforts to become more sustainable.

Work Cited

The following information was obtained with assistance of Macalester's Environmental Studies website, the MacCARES website, Bon Appétit's website, Brett Smith, Ann Esson, Mark Davis, Al Romero, Theresa Cinni, Daniel Higgins, Sue Abou-Nasar, Justin Lee, and other students.