Environmental Stewardship Team
Report on Summer 2007 Research Project

To: Environmental Stewards in Administration, Agriculture Hall, Anthony, Bessey Hall, Biochemistry, Computer Center, Food Safety and Toxicology, Food Science, Geography, Olds Hall, Packaging and Wells Hall.

From: Kathy Lindahl and the Environmental Stewardship Systems Team

Date: October 29, 2007

Re: Summer Study - Energy and Waste Management Research

We want to thank you for participating in the summer research projects regarding energy consumption and waste management on campus. The Environmental Systems Team in collaboration with campus research teams conducted 2 separate studies regarding energy use and waste management (recycling) in 12 buildings this past summer and your participation in the study was very helpful. We appreciate your help with communication to the building occupants regarding energy conservation and recycling during the study period.

The energy study focused on measuring the heating, ventilating and air conditioning (HVAC) electrical loads, along with the "user" load or everything else that consumes electricity such as lights, computers, copy machines, etc., in Administration, Bessey, Food Safety & Toxicology, Food Science, Geography and Wells Hall. The waste management or recycling study focused on measuring the amount of landfill by building, along with the amount of recycled office paper, newspaper, and plastics for 6 buildings, Anthony, Agriculture Hall, Biochemistry, Computer Center, Olds Hall & Packaging. Slight adjustments were made in each set of study buildings to determine affects of operational changes, such as adjustments to starting time of (HVAC) equipment and adding a number of recycling collection bins in certain buildings.

The results of the energy study provided valuable information, such as slight modifications to HVAC equipment has the potential to reduce up to 3 percent of the energy consumed in most buildings with the HVAC load being 40 to 60 percent of the total electrical consumption in any given building. Lighting is also a large consumer of energy in buildings and turning all lights off one hour each day in a building can save another 3 percent on energy. Making sure the lights are turned off when you leave for lunch can have a big impact on the campus.

While the results of the waste management study were not as definitive due to data collection issues, the measurement of the materials coming out of the buildings is on going and the team hopes to have better data to analyze by the end of the semester, December 2007. Valuable information was learned from the study, including the potential recyclable materials that are being put in trash containers discovered through trash sorts, recycling bin locations and style of recycling bins need improvement to encourage more recycling by the occupants. The feedback from environmental stewards in the building, custodial staff and occupants has been very beneficial in providing the team with input on what will work to increase recycling in buildings and the amount of communication/education that will be required to institute a comprehensive recycling program on campus.

Again, we thank you very much for participating in the summer research regarding energy and waste management and look forward to working with you to reduce our environmental footprint on campus. For additional information on the summer research projects go to http://www.vpfo.msu.edu/boldnessbydesign.htm.