Many thanks to the Utilities Department within Facilities Management for helping to create this document. Special thanks to Jennie Rectenwald, Carol Dollard, and Heidi Mechtenberg for compiling and analyzing data. Additional thanks to members of the campus community that provided editorial commentary on this report, including: Tonie Miyamoto, Sheela Backen, Dr. Del Benson, Karyn LeBlanc, Derek Keen, Jason Biggins and Gailmarie Kimmel.
Global warming, the greenhouse effect, the ozone layer, clean drinking water and acid rain are all major concerns related to our utility use and its impact on the environment. Programs that conserve energy and water not only reduce the amount of natural resources used, but they also reduce the amount of pollutants released during the conversion process. Facilities Management is committed to projects that conserve water and energy in order to create a healthier and more sustainable campus and community.

"Colorado State University is committed to being a responsible consumer of energy and water resources while maintaining the building occupants’ comfort, education and research efforts,” said Brian Chase, director of Facilities Management. “At this time, energy and water conservation is especially important to Colorado State due to dramatic budget cuts. Each dollar of avoided utility expense is a dollar used elsewhere at the university.”

The following environmental report offers a glimpse of the features and initiatives accomplished by Facilities Management with regard to sustainable practices. We anticipate this to be the first step in establishing a campus-wide Sustainability Report.

**What is sustainability?**

The term ‘sustainability’ refers to the challenge of meeting the needs of the present generation without compromising the ability of future generations to meet their own needs. As part of a larger system, Colorado State University is working to become a sustainable institution by reaching its economic and social goals, while seeking to maintain and enhance the environment rather than degrade or destroy it.

Since its founding in 1870, Colorado State University has grown to include over 8,850 acres of land, almost half of which are located outside of Larimer County. With plans of further expansion, it is important for the University to remain focused upon its overarching mission: to set the standard for public research universities in teaching, research, service and extension for the benefit of the citizens of Colorado, the United States, and the world. In order to become a role model for other universities, as well as to ensure educational resources for future generations, the campus community needs to understand how its daily activities affect the world around it and its own sustainability.

At 20.1 million dollars, Colorado State University’s annual utility bill represents a fundamental operating expense, 3.1% of the entire University budget. Facilities Management has responsibility for all physical aspects of the campus, including long-range planning, design, remodeling, construction, roads, grounds, buildings, and all associated mechanical systems, including heating, cooling, etc. Areas not under the department are University parking lots and telecommunications lines (e.g., telephones, computers, and network connections).

**TOTAL CAMPUS ENERGY USE (MMBTU)**
MISSION STATEMENT

Facilities Management is dedicated to providing facility services that are critical to the education, research and public service mission of the University. It is our privilege to work to meet the diverse facilities-related needs of University students, faculty, staff and visitors.
Building Design & Construction

Design and Construction Services provides architectural, interior and engineering design services; construction management; and project estimating. Any physical changes to property owned or leased by the University must be performed by or in cooperation with Facilities Management. Bidding or contracting work done by an outside contractor also requires prior Facilities management review and approval.

LEED Certification


Based on well-founded scientific standards, LEED emphasizes state of the art strategies for sustainable site development, water savings, energy efficiency, materials selection and indoor environmental quality. LEED recognizes achievements and promotes expertise in green building through a comprehensive system offering project certification, professional accreditation, training and practical resources.

Certification is broken down into four categories, ranging from less to more sustainable: LEED Certified, LEED Certified Silver, LEED Certified Gold, and LEED Certified Platinum.

The Construction Management Department, Institute for the Built Environment, currently offers a Green Building Certificate as one of its Continuing Education programs. This program provides participants with sustainable building tools and strategies in commercial and residential building. Available classes are listed online within the Continuing Education Catalog, www.ibe.colostate.edu/programs

Best Practices

CSU has sought LEED certification for a number of its construction projects within the past few years:

- In 2003, the University completed construction on its first LEED registered project with the renovation of three classrooms in Guggenheim Hall. The classrooms are part of a national pilot project for the new Commercial Interiors (CI) LEED Rating System, and were awarded Silver certification in June 2006.

- The University, in conjunction with the City of Fort Collins, is currently seeking LEED Silver certification on the Fort Collins Transit Center attached to the north side of the Lory Student Center. Completion is expected by August 2006.
Best Practices

In an effort to ensure that construction projects on campus impact local rivers and streams as little as possible, erosion control standards have been incorporated into the Colorado State University Construction Standards Manual. In addition, all project managers completed construction site erosion control training in January 2005.

Areas For Improvement

The Academic Village that will replace Ellis Hall was initially intended to be LEED certified. This goal changed during the design process, however, and the University is now seeking to build an ‘environmentally responsible building’ that will “undertake actions that positively influence resource awareness, sustainability, and decreased resource utilization as a model for future campus construction.” Although the building will not attain LEED standards, it does mark the first time that the University has sought to instill sustainability principles into contractual language.

Future Directions

CSU has taken some initial steps in creating sustainable buildings on campus, but it is time for the University to go one step further. By committing to sustainable designs for new buildings (i.e., policy requiring LEED certified buildings), CSU can eliminate the need to put money and time into later renovations. Creating efficient buildings in the beginning is a key step in creating a sustainable campus in the future.

DID YOU KNOW??

In April of 2006 ASCSU passed Resolution #3514, encouraging new construction and major renovations on campus to seek LEED certification.
Transportation

Transportation issues are woven into the everyday life of the campus community. From the moment a decision is made about how to arrive on campus, to how to get around during the day and return home at night, community members rely on some form of transportation. The University Master Plan calls for a continuing move towards a more pedestrian friendly campus. By moving parking farther to the edges of campus, CSU aims to encourage alternative modes of transportation on campus, such as walking and bicycling.

Main Campus Land Use: What share is transportation?

DID YOU KNOW??

Transportation accounts for more than 67 percent of the oil we consume in the United States, the majority of which is imported from overseas (U.S. Department of Energy). According to the Alliance to Save Energy, the US consumes almost 9 million barrels of gasoline daily – that’s 43% of the total global daily gasoline consumption!!

Total parking spaces increased by only 1% (179 spaces), due to the rearrangement of existing parking areas rather than the building of new ones.

Student parking spaces increased by 28% (1769 spaces), following the creation of Summit Hall and the dramatic increase in the number of students commuting to campus over the past five years.

Sustainable Transportation Committee

In 2003, CSU and the City held a transportation forum and started a committee to address traffic & parking congestion on and around campus. The committee changed its name to the Sustainable Transportation Committee in 2006, illustrating its broad commitment towards alternative transportation options. The committee seeks to make the campus more friendly to alternative transportation, such as bicycling and bus services, as well as to increase awareness by educating the campus community about the benefits of bicycling, walking and carpooling.
**Best Practices**

**Commuter Programs**
- **Carpooling** – In an effort to encourage students to carpool, CSU has located a *ride board* in the basement of the Lory Student Center.
- **Transfort** - The University partnered with the City of Fort Collins to provide bus service to the campus community. CSU students receive a **FREE** pass to ride the Transfort bus system, and faculty and staff are offered a reduced rate to purchase the PassFort pass.
- **Bike to Work Day** – CSU is a breakfast station sponsor of this city-wide event, offering food and bike support to cyclists on their way to work.

**Bicycle Landscaping** – The Grounds Department has purchased 3 bicycles and 2 bicycle trailers for the flower maintenance crews. As a result of these purchases, they have been able to eliminate one truck from their fleet.

**Alternative Fuel Vehicles**
- In 2001, Facilities Management purchased two **hybrid Toyota Priuses** for use on campus. One vehicle is used as the departmental vehicle for Facilities Management, while the other vehicle was made available to the CSU Motor Pool.
- The University currently uses **five electric vehicles** to deliver mail, help with parking control, and support facilities management and grounds maintenance. The vehicles are extremely quiet, cheaper to operate, and produce fewer emissions than petroleum fueled vehicles.

**Biodiesel** - CSU Dining Services recently partnered with Rocky Mountain Sustainable Enterprises (RMSE) to turn kitchen oil into fuel. Each semester, RMSE collects 3,600 gallons of used kitchen oil in order to produce 2,520 gallons of biodiesel fuel.

**Areas For Improvement**

Using biodiesel not only decreases American dependence on foreign oil, but it also significantly reduces particulate emissions and yields 220% more energy than is required to produce it. Purchasing Blue Sun Biodiesel also helps support the local economy since it is based out of Colorado and was established by CSU graduates!! While Facilities Management has investigated switching the CSU diesel fleet to biodiesel, the difference in cost between bio and regular diesel continues to be too great to justify action at this time.

**Future Directions**

- The Sustainable Transportation Committee is currently working to establish a shuttle system for the campus community. The proposed shuttles would be available for off-campus students to take to campus, as well as for travel around campus.
- CSU is in the process of redesigning the Lory Student Center Plaza to make it more aesthetic and pedestrian friendly. Plans include the removal of Isotope Drive and University Avenue in lieu of pedestrian walkways and sitting areas.
Water is a valuable resource, especially in the semi-arid west. As a result, Colorado State University is committed to conserving water, and has been actively researching state of the art ways to accomplish this goal. Since 1990, the student population has INCREASED over 5,000 students (a 25% increase) and building square footage has INCREASED nearly 1.4 million gross square feet (a 19% increase), while potable water use has DECREASED over 108 million gallons (a 22% decrease)!!

**Autoclaves** - In order to reduce the amount of water used in sterilizing equipment, CSU installed 41 “water saver kits” in 2005 to monitor the temperature of the drain line and only inject cold water when needed. These devices reduce the amount of tap water necessary to cool condensate, saving more than 16 million gallons of water per year!!

Anatomy-Zoology Closed Loop Process Cooling Water

In May 2005, the university completed the construction of a process cooling loop at Anatomy-Zoology to remove heat from seven environmental labs used to grow plants indoors. The addition of this cooling loop is estimated to save over 3.5 million gallons of water per year by avoiding continually running cold tap water to cool the growth chambers.

**High-Efficiency Fixtures** – CSU replaced the toilets, showerheads and faucet aerators in two residence hall towers in 2004, which has saved over one million gallons of water each year.

**Submetering** – The University began submetering its water and energy usage in order to determine the least efficient buildings on campus. By identifying buildings with high utility use, the University can establish renovation programs that will reduce demand and bring costs down.

*Main Campus Water Usage*

*Anatomy-Zoology Closed Loop Process Cooling Water*

*Microbiology Water Usage Before and After Autoclave Installation (12-month periods)*
**Best Practices**

Over the past few years, Facilities Management has begun building remediation wetlands as a means of cleaning effluent before it enters the stormwater system. These structures work by allowing pollutants and sediments to settle out of the stormwater before it enters into Spring Creek or the Poudre River, thereby using natural processes to clean up the waterways surrounding Fort Collins. There is currently one working wetland on campus, located next to the University Greenhouses, with two additional ones under construction, one at the horse pastures on Foothills Campus and one at the Spring Creek outfall next to the Ropes Course.

**IRRIGATION**

Landscape irrigation accounts for almost 40% of the water consumed at CSU (over 162 million gallons a year). As part of an ongoing effort to increase efficient water use on campus, the University has chosen to irrigate over 95% of campus with non-potable or ‘raw’ water from College Lake. This eliminates the need for the water to be chemically treated, and saves the University over $220,000 per year.

To better control irrigation on campus, computerized controls were added to manage the university’s 1,200 watering stations and 25,000 sprinkler heads. Using water meters, the staff closely monitors the evaporation rate, the amount of water being applied to lawns and how much precipitation is in the ground, and factors in other measurements such as temperature, wind and humidity. Watering is limited between 9am and 6pm to minimize evaporation losses unless new sod has been introduced.

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**Top Ten Water Users on Campus**

(based on GAL/gsf):

1. Biohazard Research Lab (BHRB)
2. Livestock Area
3. Center for Disease Control (CDC)
4. Poerner Farm
5. Chemistry
6. Lake Street Greenhouses
7. Painter
8. Hughes Stadium
9. CSFS State Office
10. CSFS Nursery

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**Future Directions**

**Graywater** – There is currently a student project underway to investigate the use of graywater on Foothills Campus. Not only does the use of graywater on landscapes conserve treated tap water, but it may also benefit plants because it often contains nutrients such as nitrogen or phosphorus.

**Conversion of District Cooling Tower to Raw Water** – By using raw water instead of treated water to provide cooling to the District Cooling Plant, this project is expected to save $17,000 a year.
Collaborative Recycling
The CSU Live Green Team and Facilities Management Integrated Waste Management have joined forces to minimize the amount of garbage that results from student move-in and move-out days. Some of the programs currently offered are the Great Sofa Round-Up, Leave It Behind, and a Moving Assistance Program.

Integrated Waste Management
Colorado State University’s Recycling program was founded in the 1970’s by a group of student volunteers. Essentially, there was no dedicated equipment, no paid personnel, very few recycling sites on campus, and very few commodities accepted. In 1990, Recycle Colorado State was started with a $26,000 grant from the Office of Energy Conservation. During the last several years Recycle Colorado State has grown substantially, resulting in the diversion of over 50% of the waste stream annually.

RecycleMania is a friendly competition among university recycling programs in the United States to see which institution can collect the largest amount of recyclables, the least amount of trash, and have the highest recycling rate. CSU joined the competition in 2005, and has been steadily rising in the ranks ever since. Not only has the University consistently beaten Yale, Harvard and CU Boulder, but it has also moved up from 7th place to 4th place in the overall competition!

Best Practices

Percentage of Waste Stream That Is Recycled

Although the total amount of waste produced on campus has remained relatively stable over the past 10 years (around 26,000 cubic yards/year), the amount of trash sent the landfills has decreased by over 50 percent. In FY06, CSU diverted 58.8% of its solid waste from landfills, placing 4th in national recycling competition against 93 universities from around the country.
Colorado State University operates two test sites where worms are used to turn a mixture of paper, cardboard and food waste into valuable compost. Last year, CSU composted 700 cubic yards of fruit and veggie scraps from the dining centers and 1810 cubic yards of tree and lawn waste from the entire campus. Currently more than 40 pounds/day of food waste is diverted from the landfill to the worm composting bins.

**VERMICOMPOSTING**

Best Practices

**REDUCE**

- To help reduce food waste in the dining halls and aid the community, leftovers that are not served are donated to the Larimer County Food Bank. CSU donates thousands of pounds of food each year.

**REUSE**

- Reusable containers, including Nalgene bottles and Tupperware ‘to go’ ware, are available to all residence hall students to use when eating in the dining halls and around campus.
- As buildings have required renovation, materials are evaluated as to whether reuse or recycling is appropriate. Ferrous and non-ferrous metals are separated and sent to appropriate recycling centers. Concrete is sent to a local recycler and reused for road base and sidewalks. All interior building materials, which are removed, are sent to the University Salvage operation, which sells them at regular community auctions.

**RECYCLE**

- The CSU Grounds Department makes organic mulch from its tree prunings, which is then spread around campus in order to regulate soil temperatures, help control weeds, and generally improve the appearance of campus landscapes. In an average year, the CSU campus processes approximately 2,000 cubic yards of mulch.

DID YOU KNOW??

- It is estimated that 1 ton of recycled paper saves 17 trees, 7,000 gallons of water and enough energy to heat the average home for 6 months.
- Each ton of recycled paper saves more than three cubic yards of landfill space. That is enough space for a year’s worth of one person’s garbage.
- Every glass bottle recycled saves enough energy to light a 100-watt bulb for 4 hours.
Energy Use

An instrumental step in the promotion of energy conservation at CSU was the 1982 Memorandum of Understanding (MOU) between the State Legislature and the University, which guaranteed that the general fund appropriation would not be reduced if the utility expenses were reduced through energy conservation. As a result of energy conservation initiatives that have been implemented over the past twenty years, the average demand per square foot on campus has actually flattened out and is currently showing little growth. This leveling out is due to a variety of factors, including: increased campus awareness and participation in energy conservation efforts, improved cooling efficiency due to the addition of the District Cooling system, and more efficient computer equipment (i.e. flat screen monitors).

Vending Misers – In an effort to conserve energy, the University retrofitted refrigerated vending machines containing non-perishable food items with energy saving controllers in 2006. The energy saving controllers, called Vending Misers, use an infrared occupancy sensor to turn off the fluorescent lights and compressor when the surrounding area is unoccupied for 15 minutes or longer, decreasing CO2 emissions by more than 230,000 pounds a year.

Steam Turbine - the University added a 800 kW steam turbine generator to the Main Campus central heating plant in October 2005. The addition of this turbine allows the University to take advantage of previously lost energy in order to produce electricity that will meet 5% of the campus peak electrical load. By producing a portion of its own renewable energy, the University will reduce carbon dioxide emissions by over 6.5 million pounds each year!!

Lighting Retrofit at VTH – The University recently replaced all of the lights at the Veterinary Teaching Hospital with more efficient fluorescent lamps and ballasts. The project was partially funded by the Platte River Power Authority and the City of Fort Collins, and is anticipated to save the University over $22,000 and reduce greenhouse gas emissions by nearly a 1/2 million pounds of CO2 each year!!

Installation of VFDs at Yates Hall – The University installed variable frequency drives on seven supply and exhaust fans in Yates Hall at the end of FY06. Although the data is still preliminary, electric use in this building has been cut nearly in half, from 6,236 kWh/day to 3,922 kWh/day as a result of this project.

DID YOU KNOW??

Since FY04, energy conservation efforts at CSU have offset more than 15 million pounds of CO2 and saved the University approximately $550,000. It is estimated that the University has avoided CO2 emissions equivalent to the annual emission of 1,500 automobiles or the planting of over 2,000 acres of tress.

Main Campus Electric Usage

<table>
<thead>
<tr>
<th>Year</th>
<th>GSF</th>
<th>kWh</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995</td>
<td>5,000,000</td>
<td>40,000</td>
</tr>
<tr>
<td>1997</td>
<td>5,400,000</td>
<td>50,000</td>
</tr>
<tr>
<td>1999</td>
<td>5,600,000</td>
<td>55,000</td>
</tr>
<tr>
<td>2001</td>
<td>5,800,000</td>
<td>60,000</td>
</tr>
<tr>
<td>2003</td>
<td>6,000,000</td>
<td>65,000</td>
</tr>
<tr>
<td>2005</td>
<td>6,200,000</td>
<td>70,000</td>
</tr>
</tbody>
</table>

Total Building Square Footage

- Facilities Management Environmental Report FY06
In fall 2004, CSU became one of the first Universities in the nation to offer on-campus residents the option to purchase wind power. Over the past two years over 400 students (4%) have signed up for this option, saving over 372,000 pounds of carbon dioxide from entering the atmosphere. This option will be made available to the campus community in FY07, and students can now sign up on-line using a credit card.

In 2005, CSU made a one-year commitment with Xcel Energy to purchase wind power as the sole energy source for 20 university buildings. By purchasing alternative energy for these buildings, the university will decrease greenhouse gas emissions by nearly 542,000 pounds.

Biomass Boiler - a District Heating unit fueled by wood chips is scheduled to be built at ARBL over the next year. Environmental benefits include: using a sustainable biomass fuel source, reduced air pollution compared to open burning of forestry residues, reduction in landfill waste, and improvement of forest health.

Education and Outreach – In an effort to increase energy awareness on campus, Facilities Management is redesigning utility usage building posters in an effort to make them more ‘user-friendly’.

Lighting Fixture Retrofits – Facilities Management recently received funding to install more energy efficient lighting in a number of buildings totaling ¾ million sq ft.

Areas For Improvement

Because wind power costs more per kWh than fossil fuels, such as coal, CSU has continued to rely on non-renewable energy sources. Committing a percentage of the campus’s energy needs to renewable energy sources may cost the university a little more, but it will dramatically reduce its environmental impact. CSU can become a member of the Green Power Partnership by committing to purchase 3% of its energy needs from renewable sources.
Other Initiatives

In addition to the more obvious sustainability projects occurring around campus, Facilities Management has been involved in a number of ‘behind the scenes’ initiatives such as green cleaning and environmental partnerships.

Partnerships and Awards

**EPA Energy Star Program Partner** – CSU is a member of the EPA’s Energy Star Program, which provides a powerful platform for utilities, state agencies, and other organizations implementing energy efficiency programs to make a bigger difference in their communities. Using ENERGY STAR tools and strategies, organizations can reduce program costs and implementation timelines while increasing the efficacy of their programs.

**US Green Building Council Member** – In FY02, Facilities Management joined the US Green Building Council. Council members work together to develop LEED® products and resources, the Greenbuild annual International Conference and Expo, policy guidance, and educational and marketing tools that support the adoption of sustainable building.

**2005 Environmental Leader Award Winner** – CSU received the Fort Collins Chamber of Commerce award recognizing environmental leadership in the areas of energy, water, transportation, recycling and materials.

**Best Practices**

**Sustainability Website** – Facilities Management has been working on a campus-wide website dedicated to sustainability issues since 2003. The website seeks to educate the campus community about current and ongoing conservation efforts, as well as to encourage individuals to adopt more sustainable practices within their daily lives. The website can be accessed at [www.fm.colostate.edu/sustain/](http://www.fm.colostate.edu/sustain/).

**Green Housekeeping** - The university developed a successful ‘green’ housekeeping program that includes the selection of environmentally preferable products (low-VOC cleaning supplies and disposable paper products with 100% recycled content), an ongoing evaluation of cleaning practices and equipment, training for personnel, and the involvement of the buildings’ users.

**Integrated Pest Management** – The Grounds Department uses several species of beneficial insects to help reduce the use of chemical pesticides in order to control noxious weeds.

**Codes and Standards** – CSU has developed and published a Standards manual, which provides guidelines for all construction projects on Campus. Language in these standards helps to identify the University’s expectations around energy and water efficiency in new buildings. Recent additions to the manual include erosion control standards, and standards requiring the labeling of stormwater drains with a prefabricated stamp.

In 2001, Colorado State University’s President Albert Yates joined hundreds of other Universities in signing the **Talloires Declaration**. By signing this declaration, President Yates committed the University to comply with a ten-point action plan for incorporating sustainability and environmental literacy into its teaching, research, operations and outreach efforts. To learn more about the Talloires Declaration visit the University Leaders for a Sustainable Future website, [www.ulsf.org](http://www.ulsf.org).
Greenhouse Gases (GHG) are any gas that absorbs infrared radiation in the atmosphere, including water vapor, carbon dioxide (CO2), nitrous oxide (NOX), ozone, and methane. These gases trap heat from the sun before it escapes back into space, thereby creating what has been referred to as the ‘greenhouse effect’ because they act as a shield to keep the earth warm. While these gases are necessary for human life on earth, there are concerns that human activities have increased the amount of greenhouse gases in the atmosphere to a dangerous level, thereby altering the overall climate of the planet.

The Green Is Gold program, which has been running for five years, is a campus-wide energy awareness campaign designed to increase participation by students and staff in energy conservation efforts. Efforts include placing posters in each building on campus depicting utility usage and cost, as well as numerous press releases encouraging the campus community to think green.

Future Directions

- Facilities Management has been a partner in the Fort Collins Climate Wise program since 2003, and is currently seeking a Gold Level rating. This level of achievement will require the department to monitor and reduce Greenhouse Gas emissions, participate on the Climate Wise Steering Committee, mentor another organization in becoming a member, and share success stories.

- Facilities Management is in the process of adding building energy and water use graphs to the sustainability website so the campus community can monitor individual building utility use over time. This feature is expected to be up and running by the end of 2006.
How does Facilities Management rate overall in terms of environmental performance? While this report has highlighted a number of areas in which the department has lowered the environmental impact of Colorado State University, there are also a number of areas in need of improvement. Grades have been assigned based on whether or not CSU’s Main Campus had a smaller or larger ecological footprint in FY06, than it had in FY03. The report card illustrates areas in which the department exceeds, as well as areas to focus on in the future.

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Energy and Water</th>
<th>Waste and Emissions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land Use</td>
<td>Energy Sources</td>
<td>Waste Generation</td>
</tr>
<tr>
<td>☺</td>
<td>☺</td>
<td>☺</td>
</tr>
<tr>
<td>Reduction in turf area; increased pedestrian-friendly areas; parking has remained stable</td>
<td>Wind power option &amp; steam power used; less than 2% of campus is renewable energy</td>
<td>Total waste generated increased by 3%, although it remains relatively stable despite increasing student numbers</td>
</tr>
<tr>
<td>Transportation</td>
<td>Energy Use</td>
<td>Recycling</td>
</tr>
<tr>
<td>☺</td>
<td>☺</td>
<td>☺</td>
</tr>
<tr>
<td>Estimated increase in commuter miles, based on 52% increase in commuter parking spaces</td>
<td>Total utility use decreased by 5.5%, but FY06 was a warmer winter; energy use increased by 4%.</td>
<td>Recycling efforts increased by 23%; composting efforts increased by 12.5%</td>
</tr>
<tr>
<td>Building Design &amp; Construction</td>
<td>Water Use</td>
<td>Greenhouse gas emissions</td>
</tr>
<tr>
<td>☺</td>
<td>☺</td>
<td>☺</td>
</tr>
<tr>
<td>LEED silver attained at Guggenheim; LEED pursued at LSC Transit Center; no certification being pursued at Academic Village</td>
<td>Water use decreased by 17% despite increases in building square footage and student enrollment</td>
<td>Greenhouse gas emissions have remained relatively stable; baseline established in FY06 at 119,580 tons of CO2 (Main Campus only)</td>
</tr>
</tbody>
</table>

**Grading System**

- ☺ - indicates a positive trend towards a sustainable campus
- ☽ - indicates stability over time or inadequate data
- ☹ - indicates a negative trend towards a sustainable campus

Each member of the campus community produces 2,368 tons of CO2. That is equivalent to the removal of 649 trees, or the emission from 474 cars.