



Calvin Sustainability Scorecard

March 2011

Purpose

In response to God's faithfulness and the Biblical mandate to exercise responsible stewardship of all God's blessings, Calvin College developed "practical guidelines that lay a foundation for living in a way that honors the Creator and his beloved creation" in the Statement on Sustainability.¹ The Statement on Sustainability notes that "[s]ustainable living is the daily working out of the stewardship mandate." As Calvin grapples with issues of sustainability, we must find ways to formalize our commitments and make sustainability the "way of life" for Calvin both in terms of operations and the educational mission of the college.

The Calvin Sustainability Scorecard (CSS) is Calvin College's means of assessing (on an annual basis) our progress toward the goals of the Statement on Sustainability. The CSS covers several aspects of sustainability at Calvin, and it is meant to be a simple but helpful way to evaluate our activities on campus. CSS metrics are related to Statement on Sustainability topics on each of the following pages. In an attempt to better evaluate sustainable practices on campus, for the first time the 2010 CSS includes metrics for composted waste diverted from the trash stream and on-campus bottle usage.

No assessment process or set of metrics are ever perfect, and this Calvin Sustainability Scorecard is no exception. It was designed to be simple, and therefore sustainable through time, and it includes mostly data that we routinely collect anyway. Data was reported based on both academic and calendar year, depending on the method it was collected. We will find good reasons to change, adjust, or amend the scorecard as we become more aware of the campus impact on God's Creation, as we continue the process of evaluating our activities in the context of the Statement on Sustainability, and as we strive to live as responsible stewards of the Earth. Comments, both praise and criticism, are welcome. Please visit the CERF website at <http://www.calvin.edu/go/cerf>.

Summary

The goal of the Calvin Sustainability Scorecard (CSS) is to provide a quantifiable measurement process to track our progress in conjunction with the College's Statement on Sustainability¹. Doing so requires accounting for campus-wide behaviors in a new way, assembling a list of things we never counted before. Some of the sections in the Statement on Sustainability lend themselves well to numeric metrics, while others do not. In the process of assembling these metrics, we are becoming more accountable for the effects of our actions on the environment.

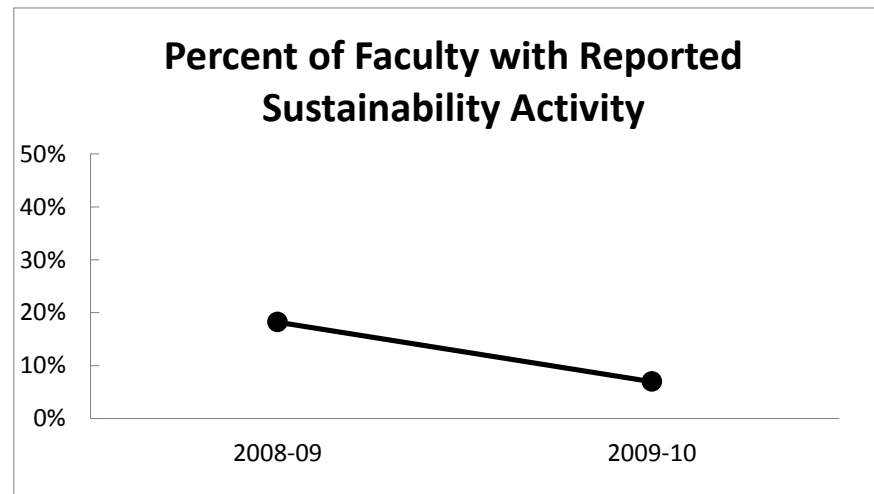
The Calvin Energy Recovery Fund (CERF) implemented its first energy-saving project in Fall 2010. However, energy consumption and CO₂ emissions continue to be a challenge for the College. Other areas showing improvement are: water consumption, recycled material, and a decrease in parking permits. 2010 also marked the first composting program integrated into Calvin Dining Services, allowing food waste to be diverted into a compost stream. Reporting of faculty sustainability related activities shows a significant decrease that may be attributed to a lack of reporting.

¹ <http://www.calvin.edu/admin/provost/sustainability/actions/statement.html>

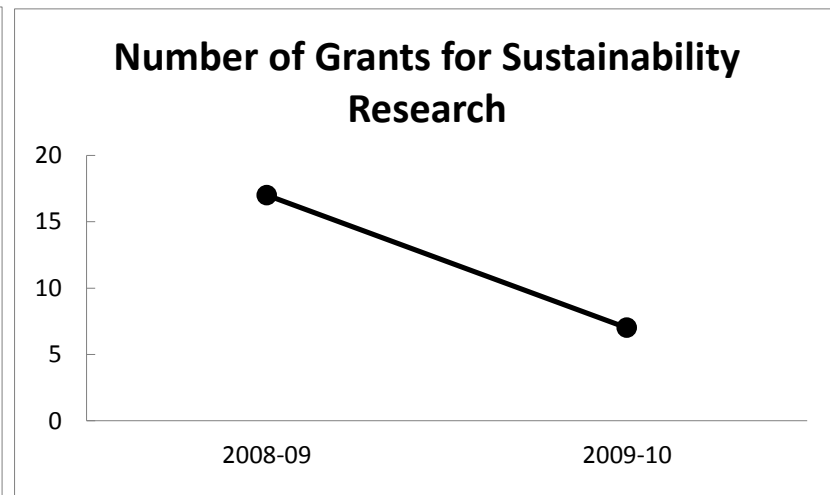
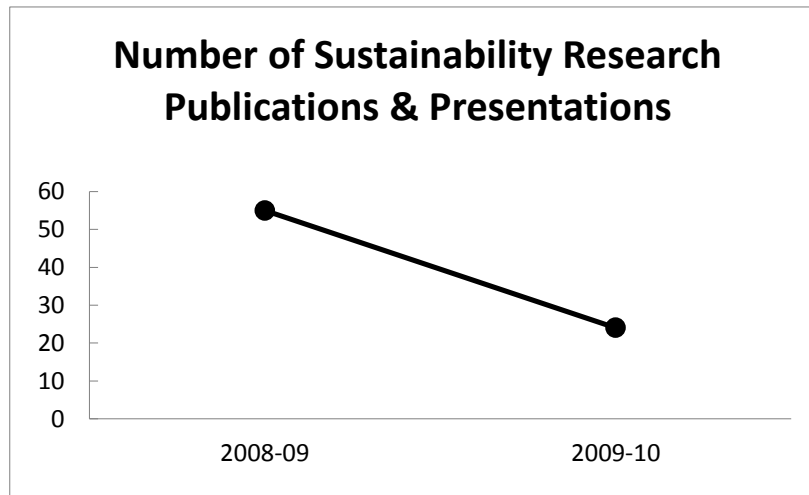
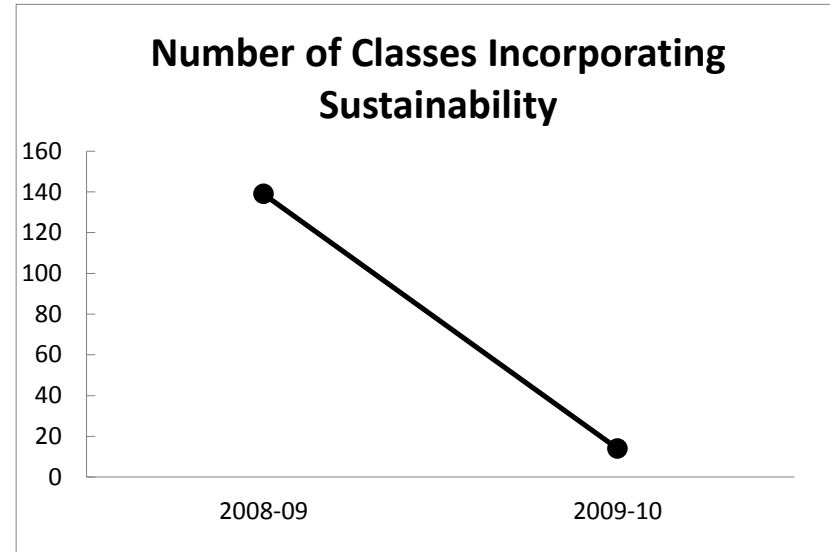
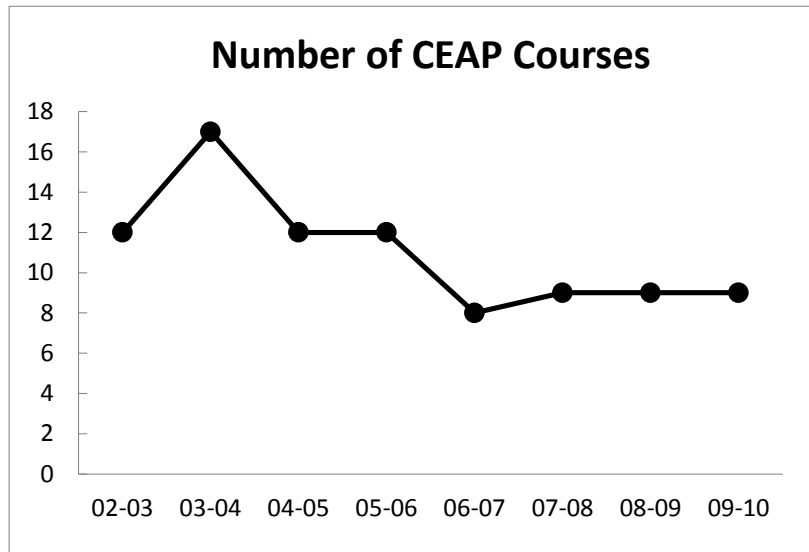
Teaching and Research 1

The Calvin Environmental Assessment Program (CEAP) provides an opportunity for students to learn about sustainability issues and creation care through class projects and laboratories. At the end of each semester, this research culminates in a CEAP poster session where students have the opportunity to present their findings.

The scorecard also tracks sustainability activities of faculty and staff through faculty activity reporting on sustainability. Sustainability-related faculty activities are divided into three subcategories: research and publications, grants and fellowships, and sustainability related class content. The 2009-2010 data shows a significant decrease in the number of faculty sustainability activities that may be due to a lack of reporting.



1 Teaching and Research



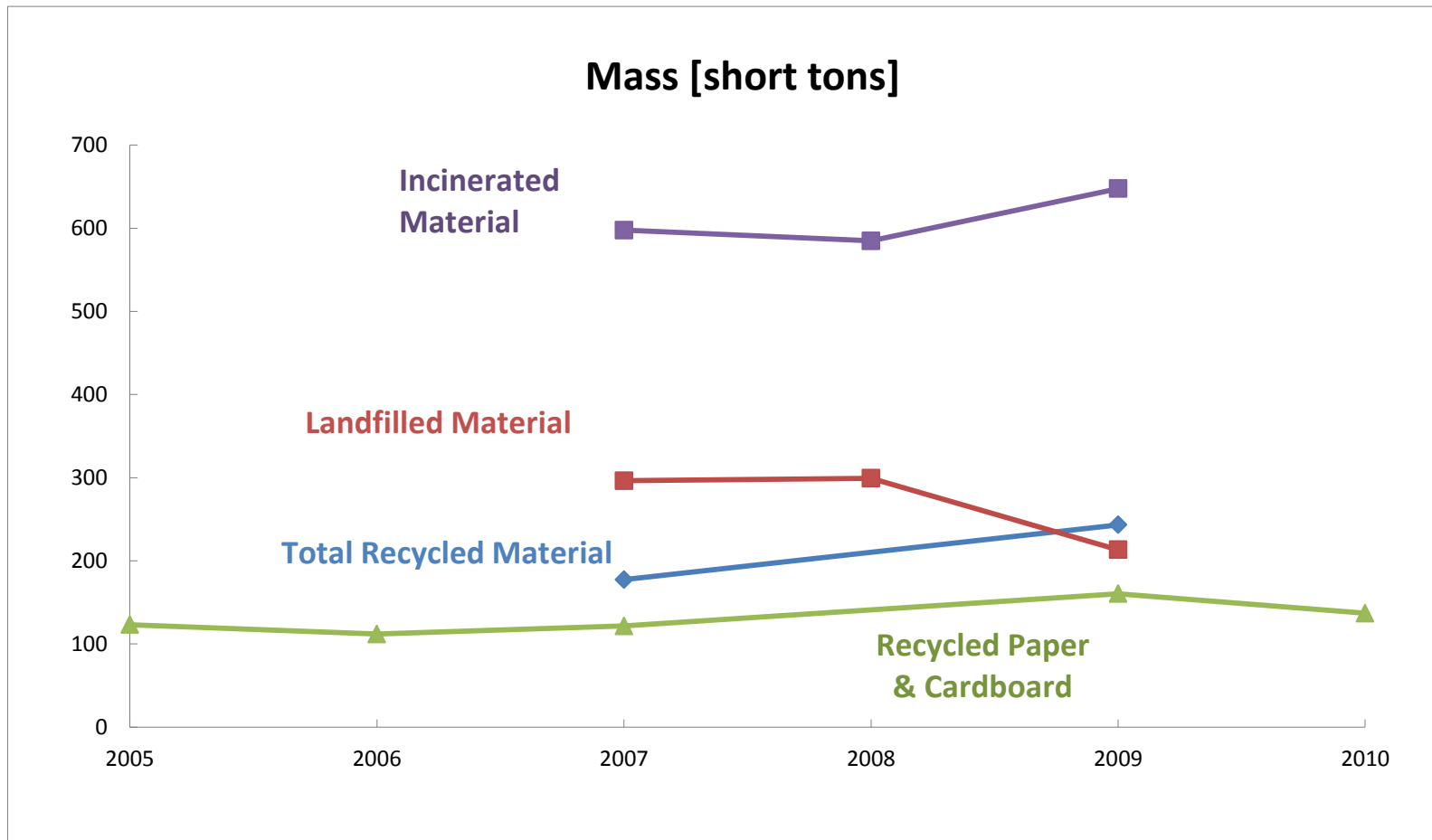
Solid Waste Reduction and Recycling 3

Calvin College continues its efforts to recycle as much material as possible. Currently we recycle office paper, paperboard, corrugated cardboard, books, glass, metal and plastic food and beverage containers, electronic devices, lamps and ballasts, batteries, polystyrene, scrap metal, concrete, used oil, and antifreeze. A sharp decrease in landfilled material can be traced to the end of major on-campus construction projects. 2010 also marked the first year that composted waste was diverted from the trash stream.

Notes about the data: Data are collected in terms of both volume (e.g., 5-gallonpails of batteries) and mass (e.g., tons of cardboard). For this scorecard, all volume data was converted to mass using measured density values. Accurate values for 2008 could not be recorded due to a change in reporting periods. The following graph contains data reported in both academic and calendar years. Data for academic years are represented by the fall semester year i.e. 2009-2010 data is plotted in 2009.



3 Solid Waste Reduction and Recycling



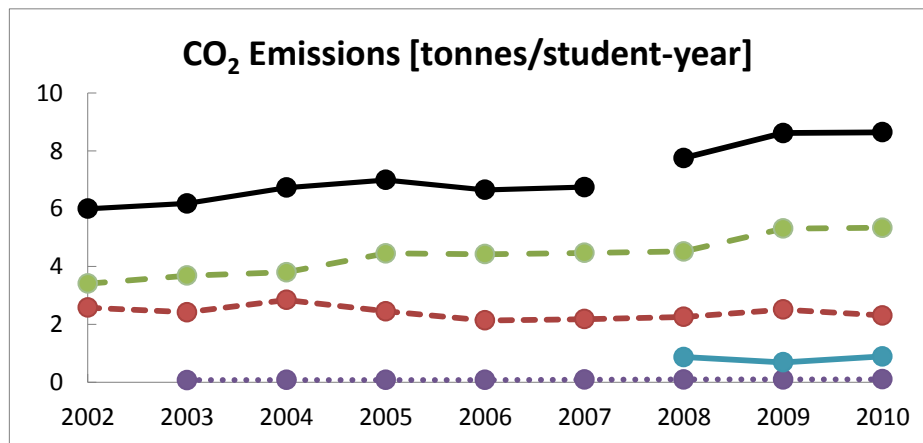
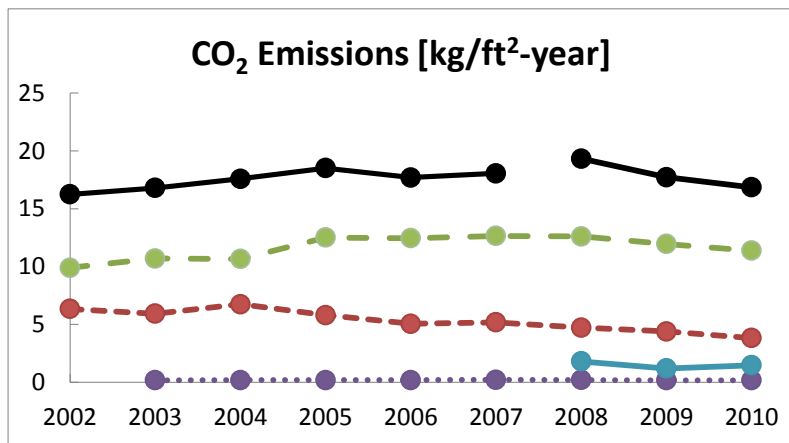
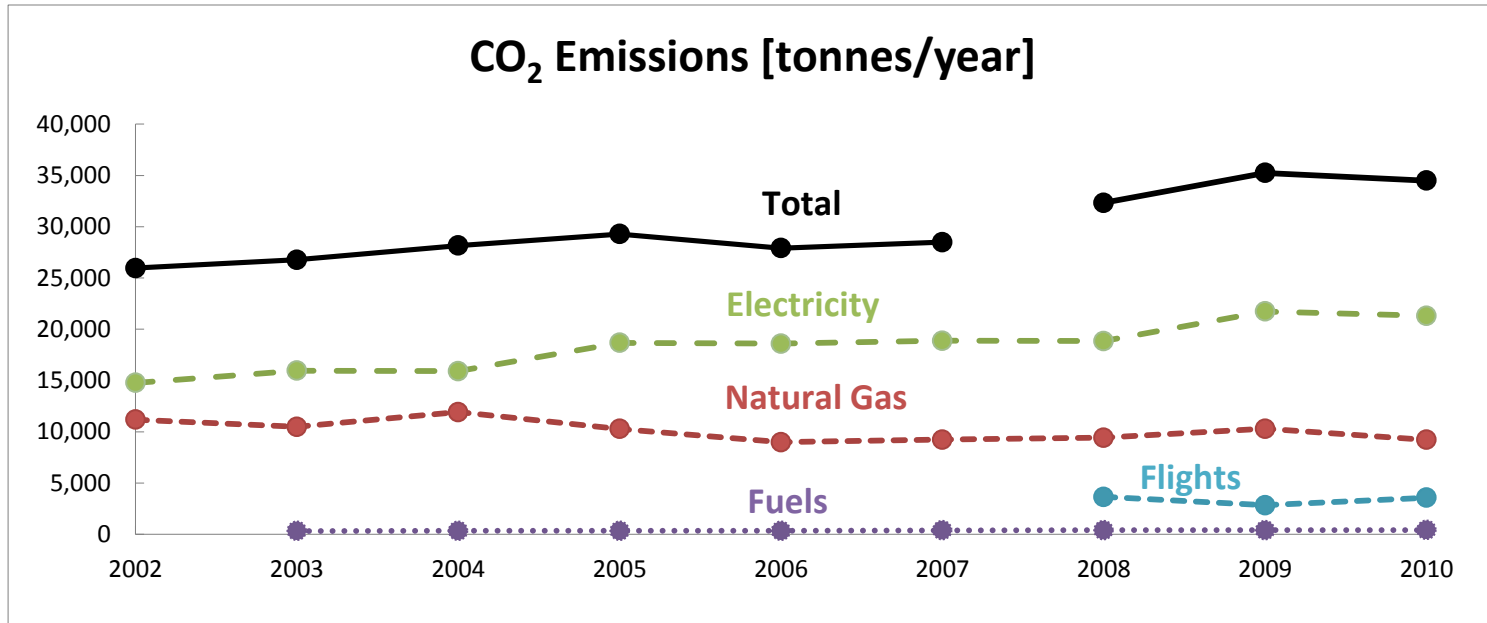
Energy Purchasing 4

Greenhouse gas emissions (CO₂ included) are an important way to assess environmental impact. The earth responds to total atmospheric CO₂ concentration. Carbon emissions "intensity" (emissions per student or per square foot of building space) is meaningless with respect to climate change caused by global warming. We seek to reduce our total greenhouse gas emissions from all activities on campus.

CO₂ emissions continue to be a challenge for the college. Emissions have increased since 2002, when data collection began. However, the 2010 data shows a slight reduction in emissions, possibly caused by the end of construction activities on the Spoelhof Fieldhouse Complex.

Calvin's CO₂ emissions come from several sources electricity, natural gas, fuel for vehicles, and airline flights.

4 Energy Purchasing

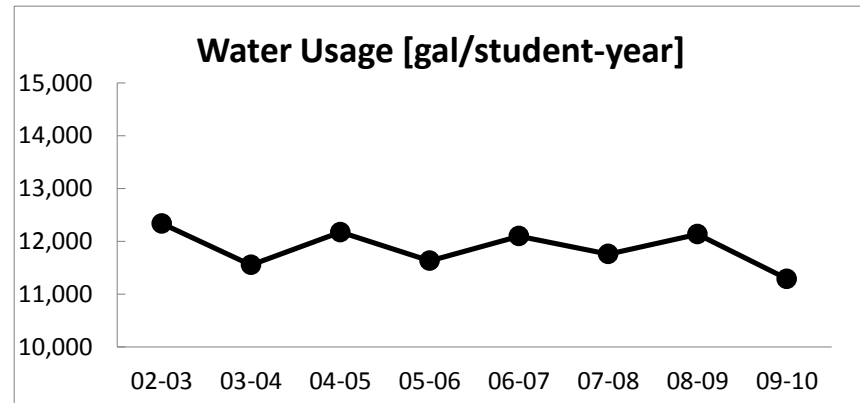
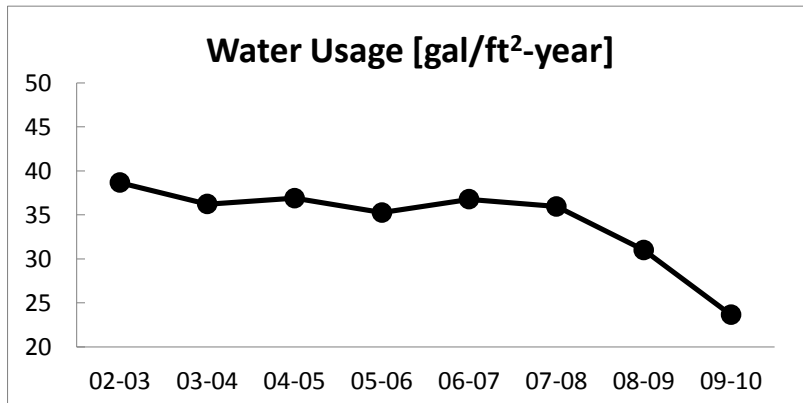
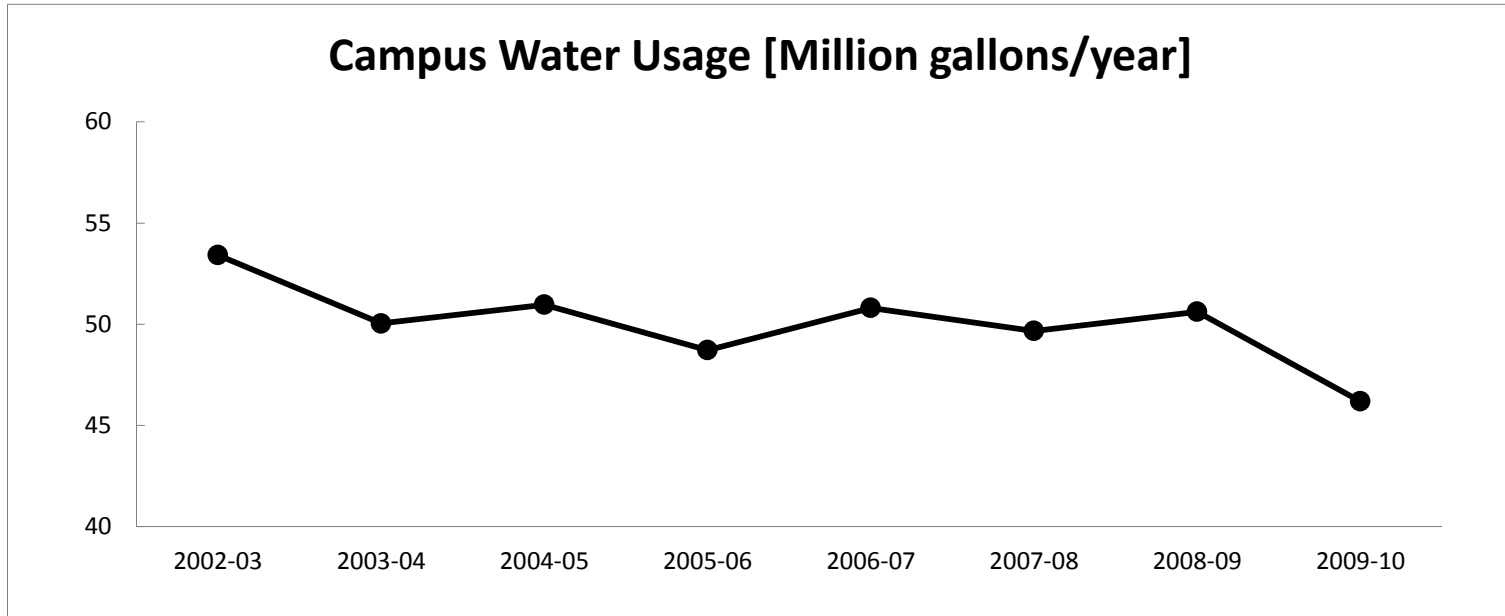


Water and Wastewater 5

Water consumption is another way to assess environmental impact. We seek to reduce the overall water consumption on campus. Water usage at Calvin is trending downward since 2002 with a large decrease in consumption seen in 2009-2010 that may be attributed to better management of watering systems.

A note about the data: Data for water usage is difficult to obtain precisely, because of the many independent water bills that Physical Plant receives. For this report, water usage is reported from the "main meter" on campus and includes the main campus but excludes the Bunker Interpretive Center, DeVos Communications Center, Prince Conference Center, Seminary Buildings, the Physical Plant building, Knollcrest East, Burton Street houses, and Ravenswood.

5 Water and Wastewater

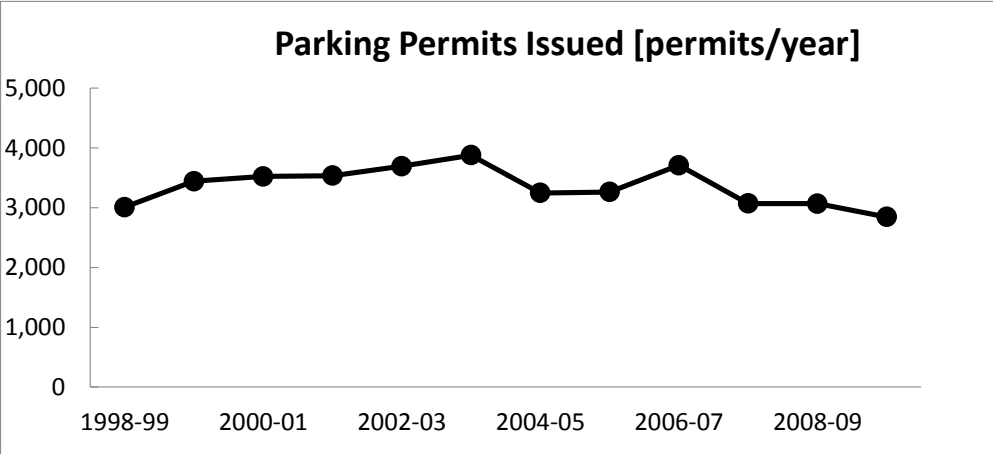
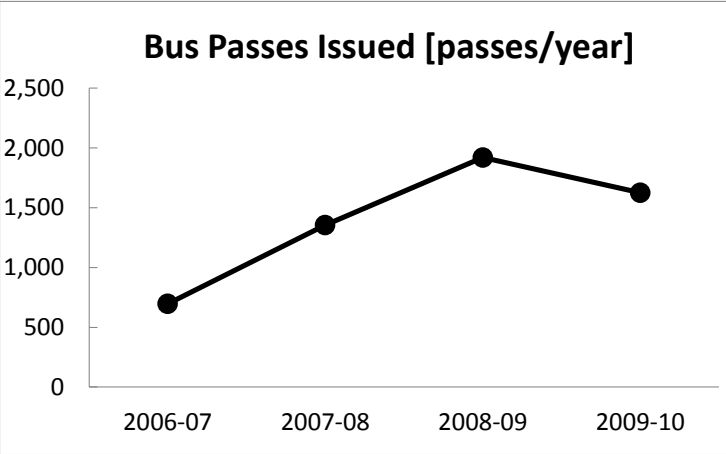
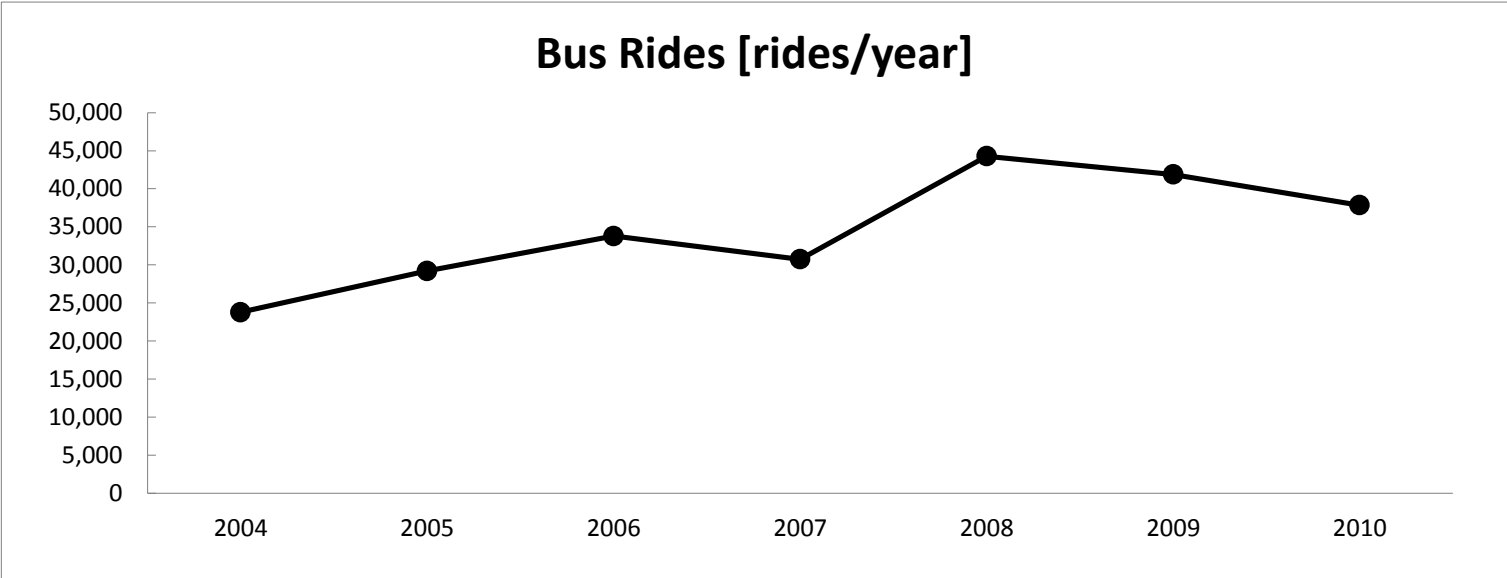


Transportation 7

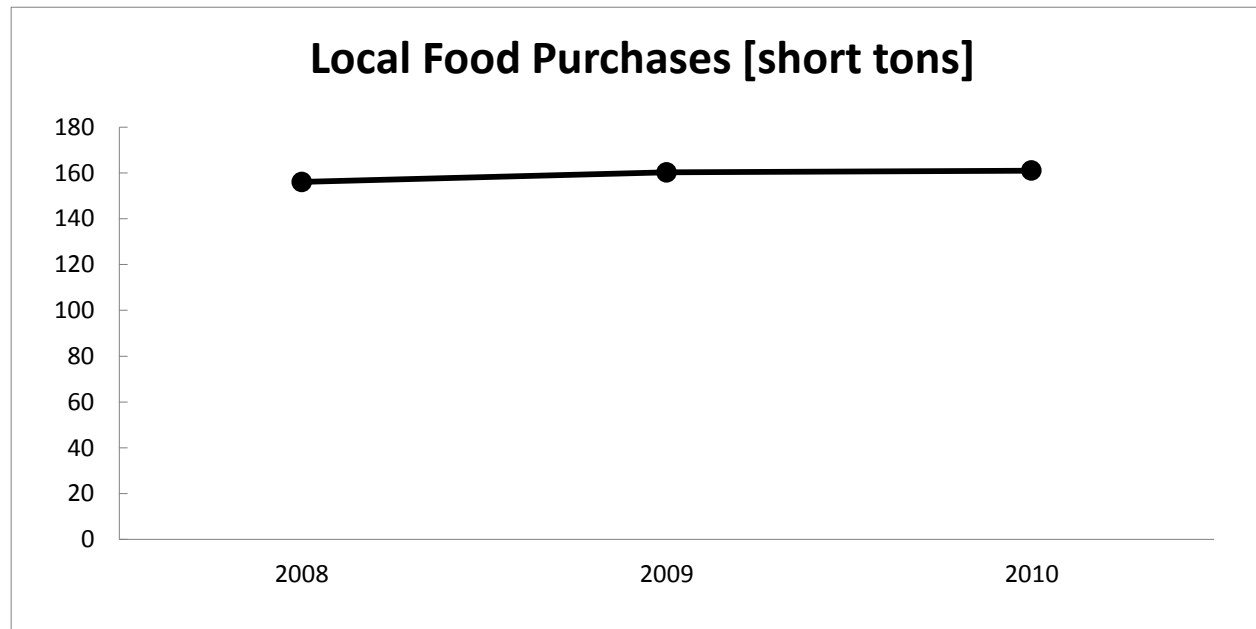
Walking, biking, and public transport are popular means of commuting to campus. Bus ridership saw its peak in 2008 corresponding to elevated gasoline prices. Subsidized bus rides have decreased since then along with gasoline prices.

A note about the data: Rapid discount cards have been available since the 2006-07 academic year, and Rapid ridership information is available since 2004.

7 Transportation



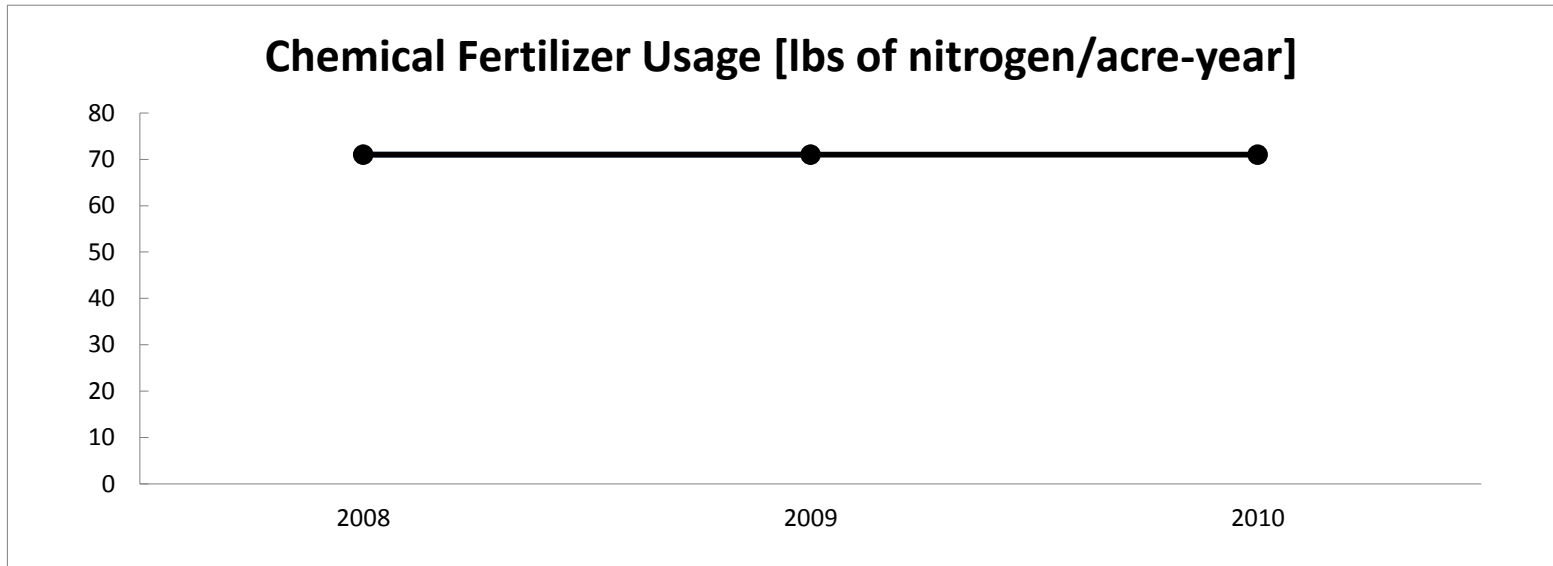
Food and Food Services 8



Calvin dining services (CDS) strives to help students, faculty and staff to understand, practice and promote sound environmental policies concerning the reduction of food waste and the promotion of recycling. Some initiatives include: buying regional produce in season, supporting local organic farms, and minimizing the use of disposable dinnerware.

A note about the data : The vast majority (72% by mass) of local food purchased by Calvin Dining Services is milk. 2008 was the first year that data was collected for this purpose.

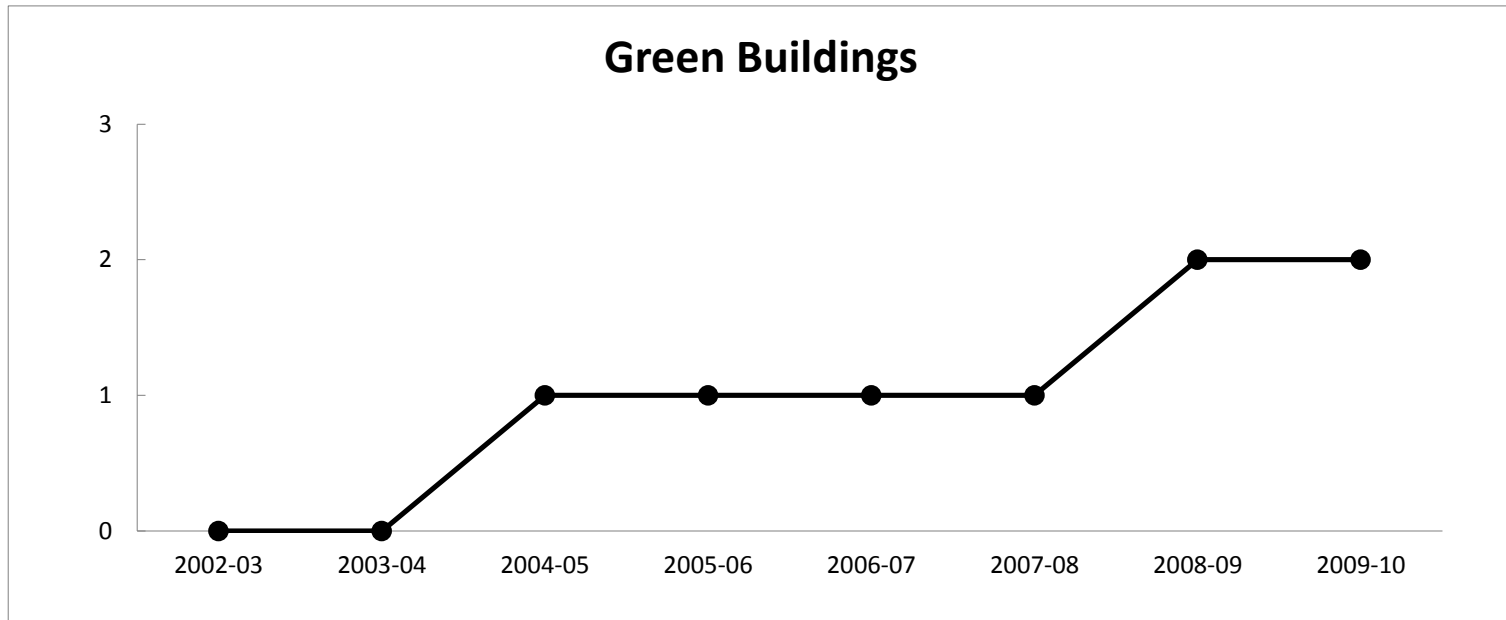
9 Campus Grounds and Land Use



General turf areas have been maintained with similar products over the last 10 years. Significant reductions in the lbs of nitrogen/acre-year took place from 1996 to 2000, when the fertilizer programs were significantly changed to reduce usage.

A note about the data : lbs of nitrogen/acre-year is a common unit of measure in this field. Calvin uses 71 lbs nitrogen/acre-year, but a typical home lawn service applies up to 250 lbs nitrogen/acre-year.

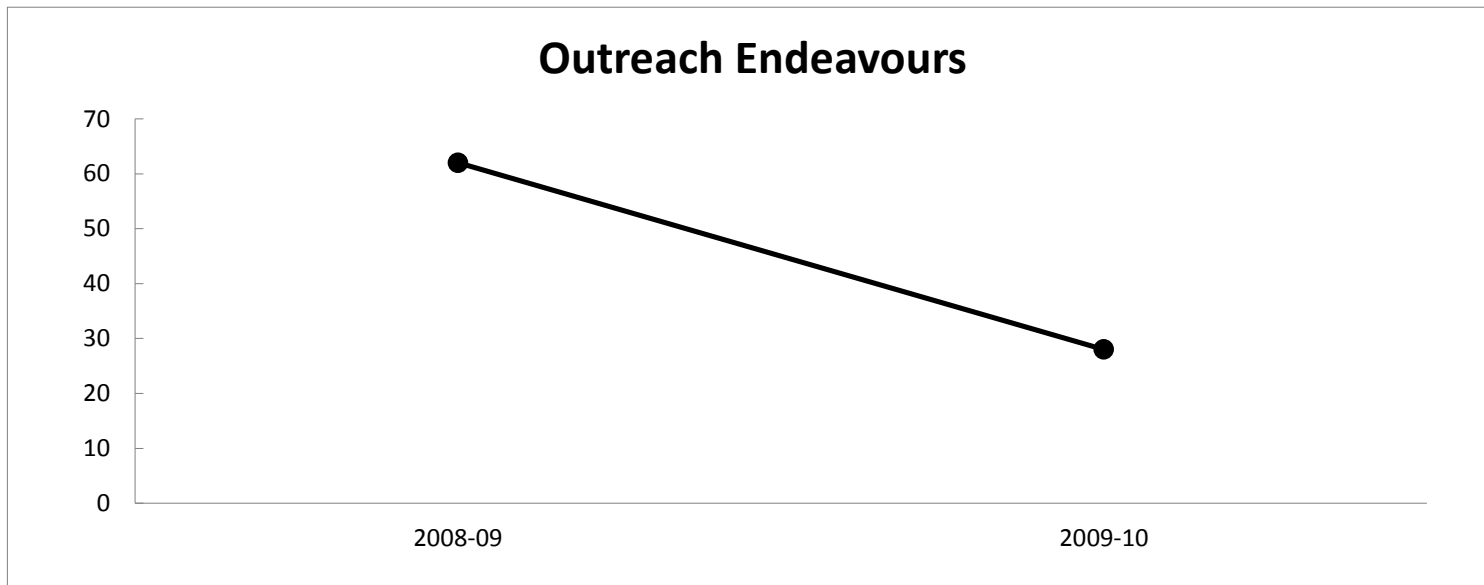
Building Construction: New and Renovation 10



Future construction is an opportunity to create more green buildings on campus. Silver LEED certification is being pursued for the future Campus Commons building.

A note about the data: The 2005 Bunker Interpretive Center was Calvin's first (and to date only) LEED certified building. (See <http://www.calvin.edu/academic/eco-preserve/bunker/> for more information.) The 2008 vanReken dormitory was built according to the spirit of the Statement on Sustainability, but narrowly missed certification due to a change in LEED scoring midway through the project. Learn more about the sustainable features of the vanReken dorm at <http://www.calvin.edu/admin/housing/residence-halls/vr-sustainability.html>.

13 Outreach



The 2090-2010 academic year was the second set of data concerning the outreach of faculty and staff via the Faculty Activities Report on Sustainability. This metric attempts to capture faculty initiatives to raise awareness of sustainable activities and stewardly behavior in communities, churches and other professional groups. Less rigorous reporting may have contributed to the decline between 2008-2009 and 2009-2010.

Acknowledgements

Rick Balfour, Food Services: Local food data

Jeff Bouman, CEAP session data

Bill Corner, Campus Safety: Transportation data

Henry DeVries, V.P. for Administration, Finance, and I.T.: Contacts for Physical Plant data

Matthew Heun, Engineering Department: CERF Manager

Henry Kingma, Physical Plant: Recycling and waste data

Matthew Moore, Food Services: Local food data

Nola Nielsen, Physical Plant: Fuel data

Dan Slager, Physical Plant: Energy and water data

Geoff VanBerkel, Physical Plant: Fertilizer data

Dawn Crook, Office of the Provost: Faculty Activities Reporting data

Jane Prins, Financial Services: Airline flight data

Shane Muller, CERF Intern: Data compilation

—ESC, March 2011