

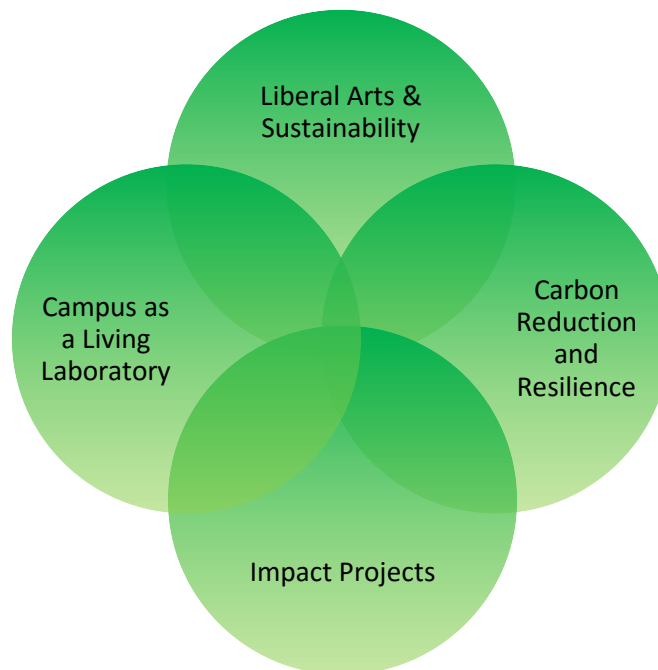


**Council on Sustainability and Social Responsibility  
2016-2017 Annual Summary of Campus Activity  
May 5, 2017**

**Sustainability Strategic Plan**

The Council on Sustainability and Social Responsibility (CSSR) has now completed a community-wide planning process resulting in the Sustainability Strategic Plan, which was adopted by the Board of Managers on April 29, 2017 as a companion document to the *Plan for Haverford 2020*. The Plan is available at <https://www.haverford.edu/sustainability>.

The Plan is driven by four overlapping areas of activity:



1. **Liberal Arts and Sustainability:** we will educate our students to be future citizens and leaders who will advance a broad array of sustainability objectives through their personal and professional lives.
2. **Campus as a Living Laboratory:** we will utilize Haverford's distinctive natural and physical assets to connect curricular and co-curricular programs with local issues of sustainability and to model innovative solutions for broader audiences.
3. **Carbon Reduction and Resilience:** we will accelerate Haverford's commitment to carbon neutrality and begin developing a physical infrastructure that can perpetuate our educational mission in a world significantly less reliant on fossil fuels.
4. **Impact Projects:** we will provide avenues for the College and our students to engage directly with urgent and consequential sustainability challenges through civic engagement, advocacy, and career and professional opportunities.

## 2016-17 Highlights

Alongside this year's continued planning work, there has been much campus activity around sustainability and social responsibility. With apologies for omissions, what follows is a non-exhaustive list of notable happenings:

### **Liberal Arts and Sustainability:**

- **Programming across the disciplines:**
  - KINSC **Symposium on Scientific Ethics** featured panel on food and water ethics in a changing climate.
  - **2017 Public Policy Forum** featured alumni panel on Environmental Policy
  - Cantor Fitzgerald Gallery hosted *Resistance After Nature* exhibition.
  - HCAH launched **Philadelphia Area Creative Collaboratives** to build curricular-community partnership projects around community advocacy and action including sustainability topics.
  - Tri-Co received a Luce Initiative on Asian Studies and the Environment (LIASE) grant for course development and guest speakers.
- **Environmental Studies:**
  - 15 ENVS seniors graduated in the Class of 2017 while 14 sophomores declared **ENVS as a minor**.
  - 6 new **ENVS courses** bring the total offered at Haverford to 26.
  - Joshua Moses built the **Fall 2016 capstone** around partnerships with the US Forest Service Field Station in Philadelphia and the East Park Revitalization Alliance in the city's Strawberry Mansion neighborhood.
  - Jon Wilson led an **Economic Botany trip to Trinidad and Tobago** with support from KINSC and CPGC.
  - **New greenhouse and head house** were completed to support ENVS research and curriculum as well as Haverford College Farm. Facility is utilized by faculty, staff, and students for botanical activity as well as more generally as a communal hub for sustainability work.
- **Campus discourse:**
  - Filmmaker **Josh Fox** visited Haverford to speak in ENVS and for a public screening of *How to Let Go of the World and Love All the Things Climate Can't Change*
  - Sustainability was the theme of the 2016 Family and Friends Weekend, including Steven Smith's interview with **Environmental Defense Fund CEO Fred Krupp**, a screening of **WAKE**, and an alumni panel about careers in **ocean stewardship**.
  - Environmentalist and entrepreneur **Yvon Chouinard** will speak at Commencement and receive an honorary degree.

### **Campus as a Living Laboratory**

- **Energy:**
  - The Committee on Environmental Responsibility (CER) held two **Do it in the Dark** energy conservation challenges. Over the past three years, these student competitions have netted 15,235kWh in energy savings.
  - The new **greenhouse** is supported by an interactive 4kW PV array that provides excess electricity to the campus grid.
  - Facilities installed **solar pole lights** on the plateau between Kim and Tritton as a demonstration/test project potentially to light areas with limited electrical service; moneys earned from the College's participation in the local power grid operator's Demand Response Program funded the installation.

- **Food Loop:**
  - The **Food Systems Working Group** continued its work under the Real Food Challenge to increase campus purchasing of sustainable, humane, fair trade, local foods.
  - **HaverFarm** Fellow Jahzara Heredia provided professional support and instruction to student farming initiative; led HaverFarm PE course; hosted numerous campus and community visitors; and supported Saint Mary’s food bank with produce donations. HaverFarm produced 2150 lbs. of produce and formalized its vendor relationship with the Dining Center
- **Waste:**
  - CER provided **electronics recycling** to community members during Earth Week to build waste stream awareness and provide an employee benefit.
  - CER is organizing a new **donations program** during student move-out.
  - CSSR designated an institutional preference for **corrugated shipping pallets** to reduce waste in a collaborative alumni project.
  - In another alumni-linked project, students studied the feasibility of **anaerobic digesters** on campus.
- **Campus Ecosystems:**
  - Arboretum planted **21 new trees and over 200 seedling trees**; hosted Arbor Day **community planting and perennial giveaway**.
  - Campus **bee hives** were populated for a second season.
  - The **dredging of the Duck Pond** will include an inventory and accommodation of affected wildlife.
  - Haverford recognized by Arbor Day Foundation as a **Tree Campus USA** for 2016.

**Carbon Reduction and Resilience:**

- **Energy:**
  - Facilities completed the 3rd year of a 5-year initiative to upgrade the **Building Automation Systems** (BAS) in buildings across campus enabling finer & more efficient control of heating ventilating and air-conditioning systems (HVAC)
  - Facilities completed **GIAC lighting upgrades**, including a new LED system with occupancy and daylight sensors and allowing for three levels of lighting. The upgrade will save 261,841 kWh per year.
  - Facilities completed the conversion of 240 **campus pole lights** to LED, saving 171,696 kWh per year.
- **Capital Projects: Sharpless and VCAM renovations** were executed to LEED specifications; certifications pending.
- **Fleet:** Campus Safety purchased its first gas-electric **hybrid patrol vehicle**.
- **Water:** Facilities installed 10 additional **water bottle filling stations**, bringing the campus total to 14.
- **Policy and Administration**
  - The College launched a new fossil-fuel-free donor fund called the **Green Fund for Sustainability**.
  - Haverford hosted Harvard’s Leith Sharpe for a professional development workshop: **Leadership Lab for Sustainability, Innovation, and Organizational Design**

**Impact Projects:**

- **Public Advocacy:**
  - Haverford was a co-drafter and signatory of Second Nature’s **letter to the Trump administration** about climate change; this effort is now linked with the National Wildlife Federation, CERES, and Low Carbon USA.
  - Haverford will join Swarthmore, Vassar, Dickinson, and others in advocating for carbon pricing public policies through the **Put A Price on It** campaign.
  - Haverford leadership engaged in targeted **sustainability advocacy** including with the PA legislature, SEPTA, and Montgomery County.
- **Community Activism**
  - The Quaker Affairs Office hosted **Eileen Flanagan**, Clerk of the Board of Earth Quaker Action Team (EQAT), as Friend in Residence, who spoke about nonviolent direct action to address climate change, with 10 class visits, 4 workshops, a public talk, and involvement with EQAT's campaign to pressure a local utility on sustainability issues.
  - Haverfordians for a Livable Future (HLF) led community engagement with **Standing Rock** during their resistance against the Dakota Access Pipeline.
  - HLF hosted **Cheri Honkala** on campus to speak about student engagement and activism.
  - CER led community engagement with **Lancaster Against Pipelines**, including multiple site visits to the resistance encampment, volunteering, and direct action trainings.
  - Haverford students, faculty, and staff marched at **People’s Climate March** and the **March for Science**.

*Looking ahead to 2017-18:*

- *New working groups will be convened to implement elements of the Sustainability Strategic Plan.*
- *BAS Upgrade Project - 4th year of 5 year project.*
- *Building Exterior lighting upgrades will continue*
- *New Utility Master Plan to explore viable options for campus energy*
- *Pulper & Earth Tubs will enable on-campus composting*
- *Electric Maintenance Vehicle(s)*
- *Water bottles for new employees*
- *2017 Southeast PA TreeVitalize Watersheds grant will fund a riparian buffer planting project at wetland and riparian area*
- *CER to pilot a campus bike share program.*
- *Possible engagement of Carbon Lighthouse to enable the analysis of existing building systems & proposed adjustments to increase operational energy efficiency. Initial pilot analysis currently in process including Stokes Hall, GIAC and KINSC.*
- *Consideration of off-site PV (photovoltaic) farm.*

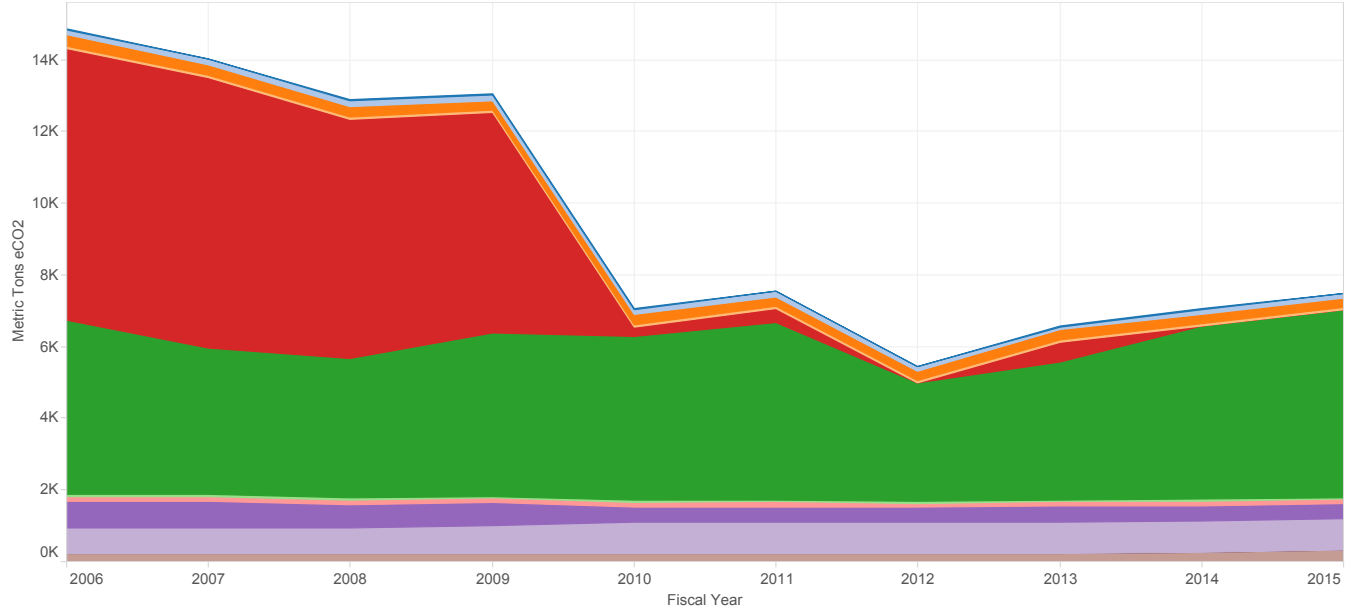
CSSR Executive Committee

Jesse Lytle, Chief Sustainability Officer (chair)  
 Claudia Kent, Sustainability Coordinator  
 Jon Wilson, Environmental Studies Director  
 Walter Sullivan, Director of Quaker Affairs  
 Alana Tartaro '17, CER Chair  
 Carola Binder faculty representative  
 Raji Mohan, faculty representative  
 Diana Schoder '17, student representative  
 Katherine Travisano '20, student representative  
 Allison Carpenter, staff representative

Council Members

Fran Blase, Provost  
 Megan Fitch, Chief Information Officer  
 Mike Casel, Chief Investment Officer  
 Mitch Wein, VP Finance and CAO  
 Ann Figueredo, VP Institutional Advancement  
 Don Campbell, Director of Facilities Management  
 Bill Astifan, Director of Arboretum  
 Bill Anderko, Asst Dir of Facilities Management  
 Joe Binotto, Assoc Director of Dining Services  
 Muriel Brisbon, Director of Human Resources  
 Marianne Smith, Director of Residential Life  
 Eric Hartman, Executive Director, CPGC  
 Chloe Wang '17, Sustainability Outreach Assistant

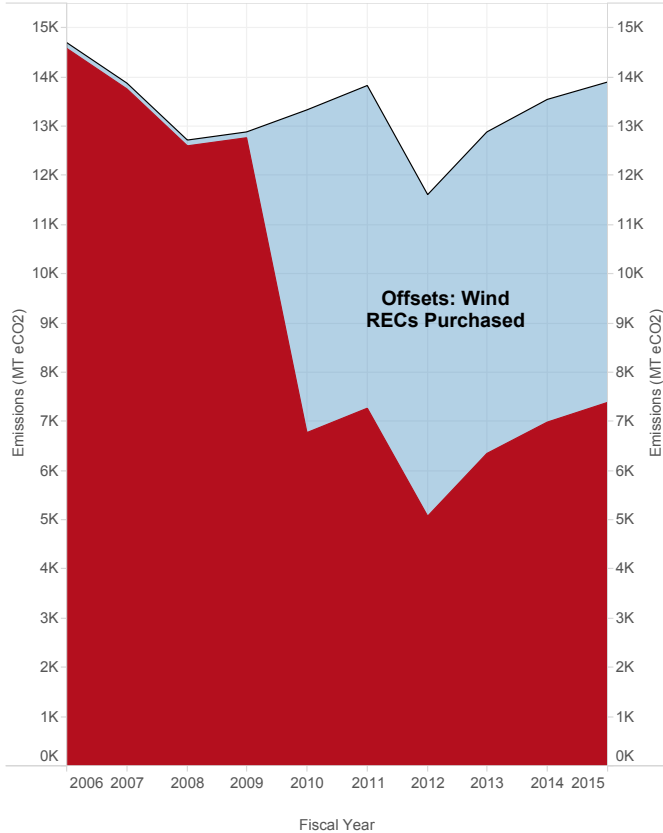
## Net Greenhouse Gas (GHG) emissions by sector



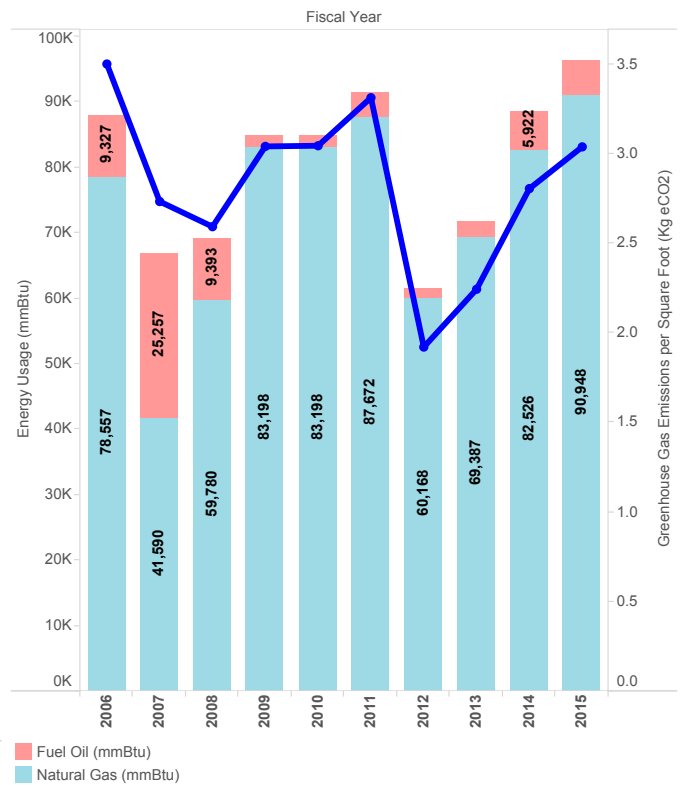
### Sectors

- Agriculture
- Direct Transportation
- Directly Financed Air Travel
- Faculty / Staff Commuting
- Net Electricity Emissions\_with offsets
- Other On-Campus Stationary
- Paper Purchasing
- Refrigerants & Chemicals
- Scope 2 T&D Losses
- Solid Waste
- Student Commuting
- Study Abroad Air Travel

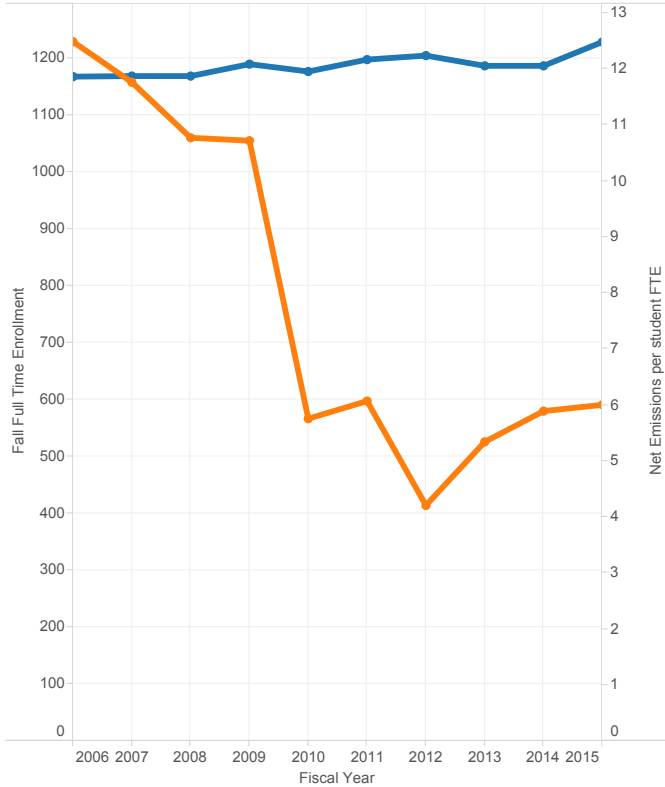
## Net GHG emissions



## Oil vs. Gas usage (bar) with Resulting GHG emissions per building square foot (line)

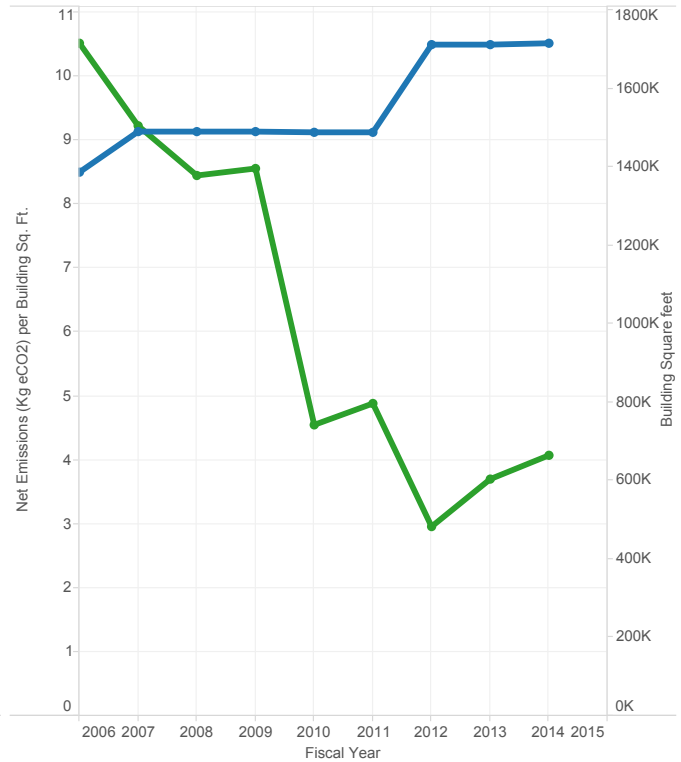


### Net GHG emissions per Student FTE with Fall enrollment



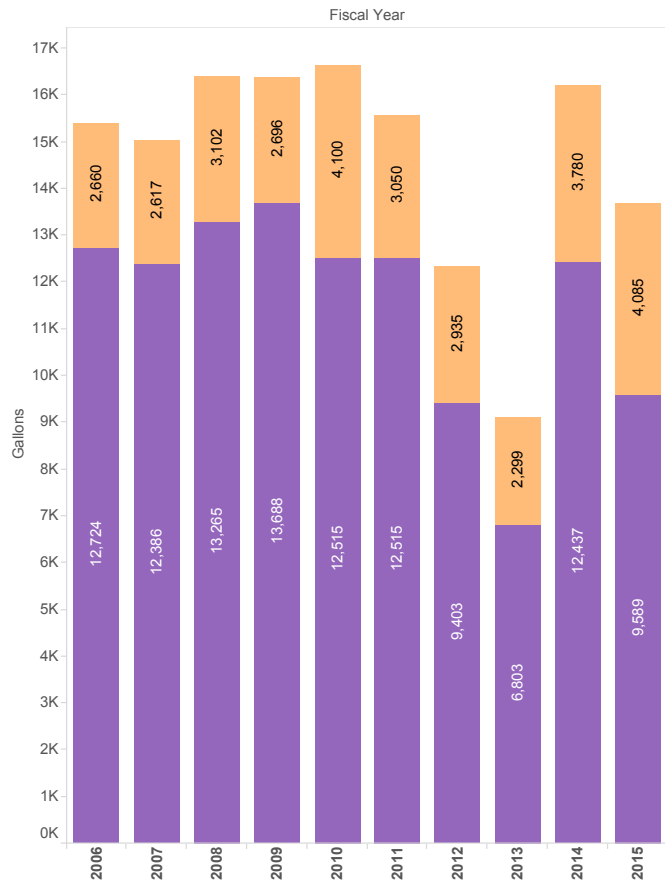
**Measure Names**  
■ Fall Full Time Enrollment  
■ Net Emissions per student FTE

### Net GHG emissions per campus square foot with total building square feet



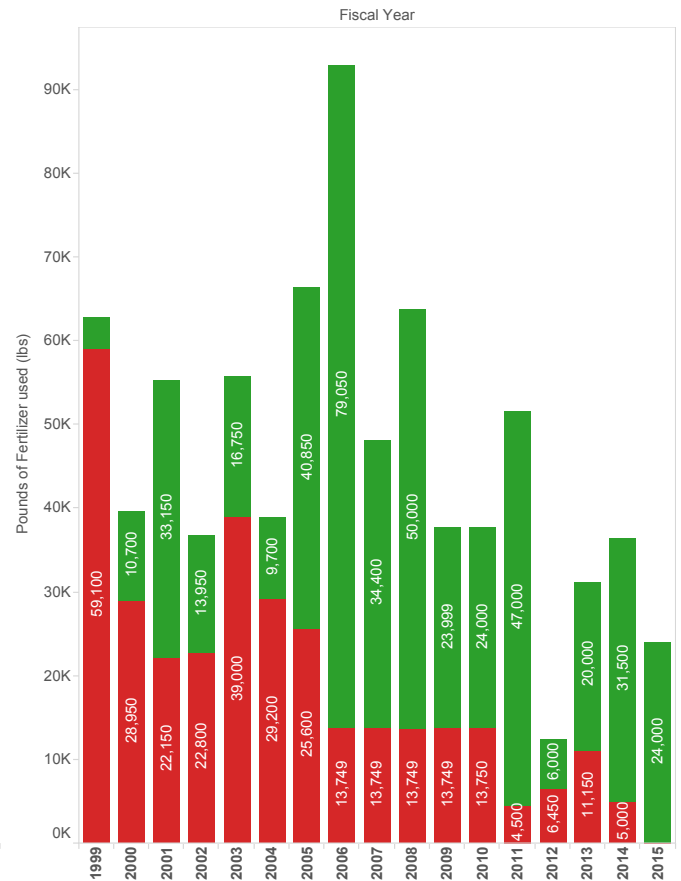
**Measure Names**  
■ Net Emissions (Kg eCO2) per Building Sq. Ft.  
■ Square feet

### Fleet fuel usage



**Measure Names**  
■ Diesel Fleet  
■ Gasoline Fleet

### Fertilizer usage



**Measure Names**  
■ Organic Fertilizer  
■ Synthetic Fertilizer