

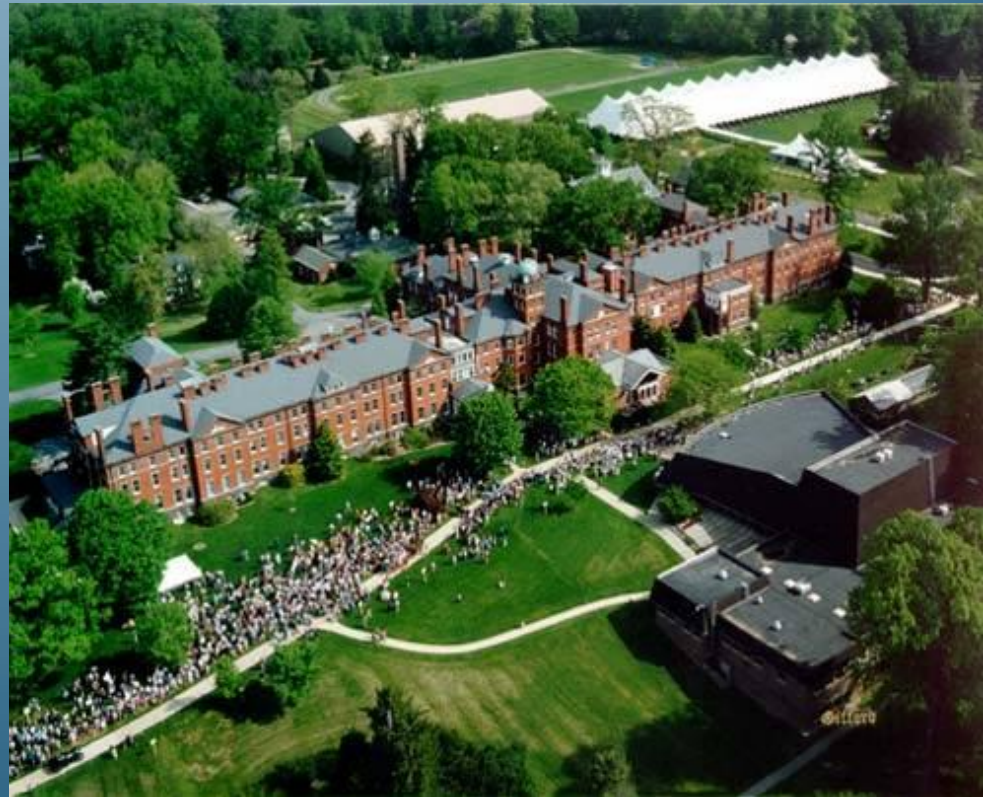


EPA Webinar

November 6, 2013

Westtown School

- *Pre K -12 Co-ed Quaker Day and Boarding School*
- *Founded in 1799*
- *Located in Westtown Township, near Philadelphia*
- *632 Students*
- *291 Boarding Students*
- *210 Faculty and staff*



Sustainability Mission Statement

“..... Ultimately, our goal is to create an environmentally literate and responsible community of students, faculty, staff, and families whose daily actions reflect care for the earth and its biodiversity.”

Carbon Emissions from Electricity & Heating Fuel BASELINE

From electricity: 5,389,300 pounds CO₂
(2007)

From #6 fuel oil: 4,920,627 pounds CO₂
(3-year average 2005-07)

TOTAL **10,309,927 lbs CO₂**

ENERGY and CONSERVATION

44 kW PV solar array generates 55-60,000 kWh/yr.



Geothermal heating in five faculty homes, two renovated dorms, Admissions Office



Conservation begins in earnest



Progress by 2011-12

Electricity: 4,556,174 lbs CO₂ (**15%** reduction from solar, conservation, building control)

Natural gas: 3,147,446 lbs CO₂
(**36%** reduction from switch away from fuel oil)

TOTAL: 7,703,620 lbs CO₂

25.3% overall reduction

New Facilities Building: LEED Commercial Interiors



Campus Electricity Use

Costs avoided since 2007: \$300,000

2007 vs. 2013



Progress by 2013-14

electricity: 0 lbs CO₂

(from conservation, solar, wind credits)

natural gas: 3,147,446 lbs CO₂

(**36%** reduction from switch away from fuel oil)

TOTAL: 3,147,446 lbs CO₂

**Projected 65-69 % reduction
from 2007 peak**

Science Center Addition

LEED Silver or Gold



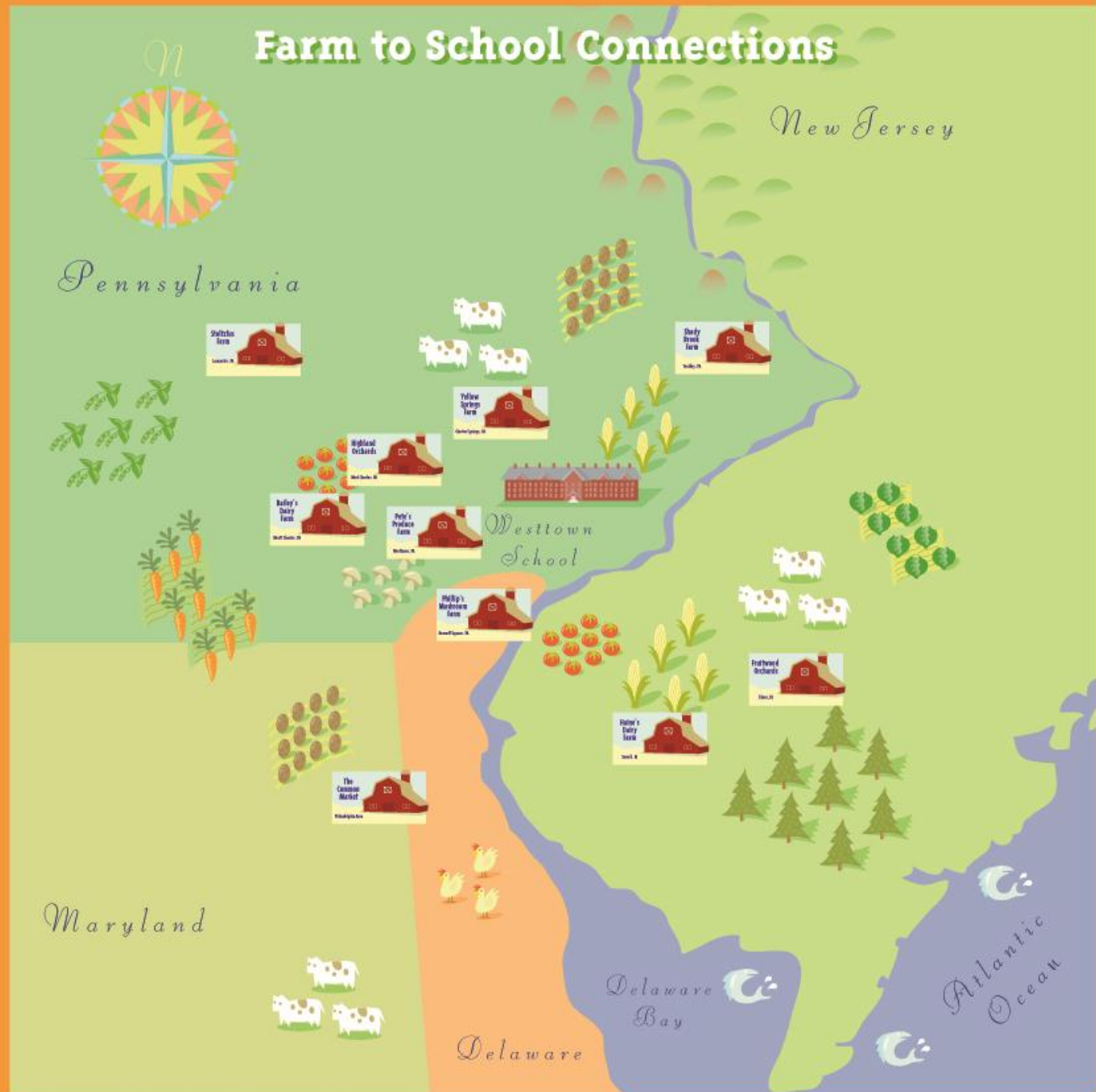
Sustainable Agriculture Program



Middle School
students
plant
tomatoes in
the high
tunnel



90 local farmers supply food for the dining hall



Waste Reduction & Recycling

2010: **20%** waste diversion

2013: **55%**



SUMMARY

- **CO₂ Reductions:** 65-69%
- Average **Savings** Each Year: \$320,000 (reduced waste hauling fees, reduced waste in dining hall, lower electricity and heating costs)
- Average **Costs** for Sustainability Program: \$60,000-70,000 per year (consultant, capital expenditures and staffing)
- **Impact** and Educational value: Incalculable



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