

# Climate for Community



## Profile: Lick-Wilmerding High School

Lick-Wilmerding High School is a private school serving more than 400 students in San Francisco. The new Technology and Design Center is equipped with solar panels, natural daylighting, on-demand hot water and other design features that minimize energy use while improving the learning environment. Changing cafeteria practices eliminated plastic water bottles and increased composting and recycling. Through increased waste diversion, building efficiency and solar electricity generation, this high school saves thousands of dollars in energy and waste disposal bills annually and avoids about 150 tons of GHG emissions.



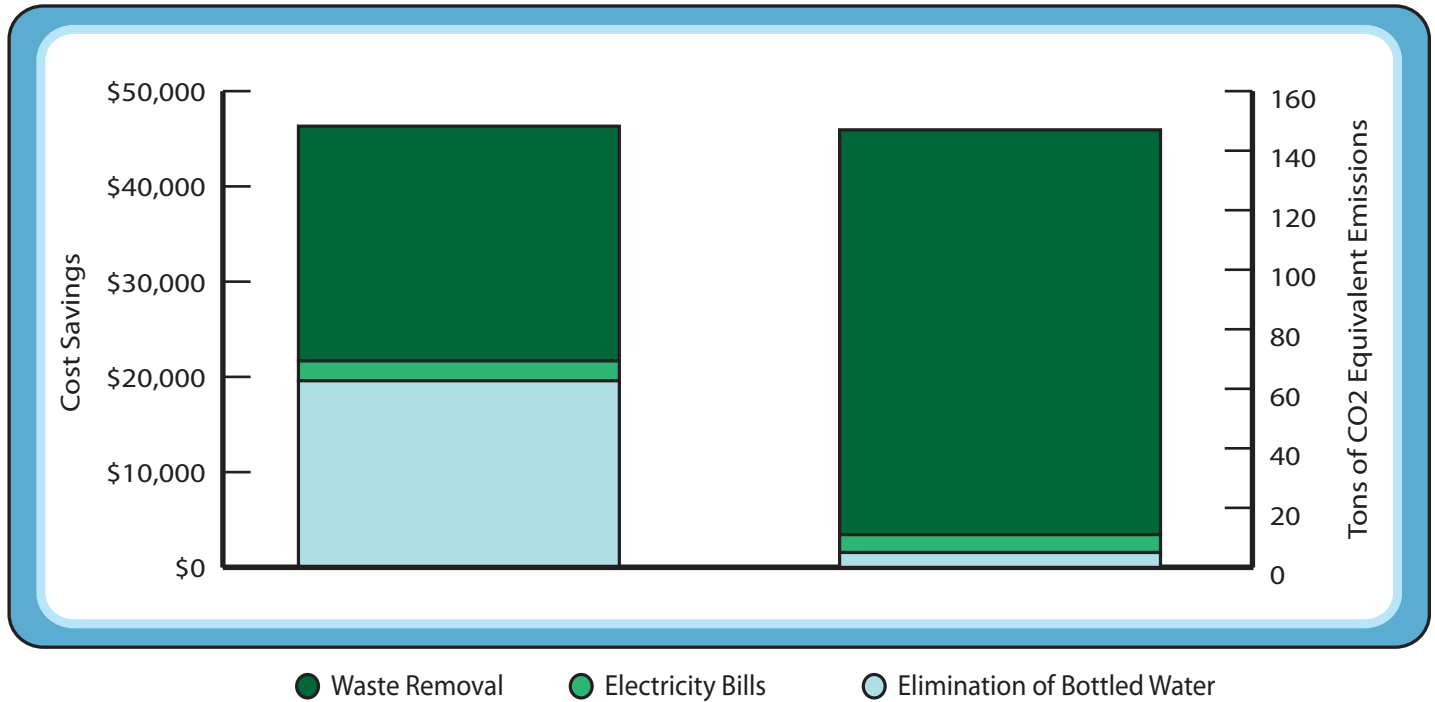
Faculty and Staff	70
Students	440
Facilities	26,000 sq. ft. Technology & Design Center; Computer-based design labs, classrooms, three converted Victorian houses for administration
Emissions Reduction Measures	Photovoltaic electricity generation; recycling and composting; plastic water bottle elimination; computer power management
Energy Bill Savings	\$7,000 per year
Garbage Bill Savings	\$24,000 per year

## Green Elements

- **Going Solar** – A 7.5-kW photovoltaic system produces more than 13,000 kWh of electricity each year, which is enough to operate 85 computers and save more than \$1,500 annually in power bills. The project paid for itself in about five years and is now a free source of electricity that avoids five tons of greenhouse gases annually.
- **Building Green** – The Technology & Design Center showcases sustainable design, including post-consumer building materials, extensive natural daylighting, and a living roof that insulates, cools and provides a lawn for play and study.
- **Eliminating Plastic Bottles** – Replacing bottled water with tap water avoids putting 100 plastic bottles in waste bins each day and avoids about 5 tons of emissions every year.
- **Reducing waste** – Composting food waste from the cafeteria, kitchen, and faculty lounge, and recycling paper and plastic avoids 150 tons of emissions and saves more than \$20,000 each year on garbage bills.

## Green Actions Lower Operating Costs

### Emissions Reductions Provide Significant Cost Savings



## Next Step

*Better power management* - Lick-Wilmerding High is testing ways to better manage electricity demand from computers and appliances, including using power strips to shut off work stations that use "standby" power during nights and weekends and recharging laptops at times when electricity rates are lowest. Energy management methods can reduce the school's electricity use by more than 3,500 kWh a month, equivalent to \$5,500 per year in energy bill savings.

## Statewide Potential

Lick-Wilmerding High demonstrates the environmental and economic benefits of sustainable buildings and energy efficiency. Buildings that meet stricter standards, like the U.S. Green Building Council's Leadership in Energy and Environmental Design, use only two-thirds the energy of conventional buildings but are not significantly more costly to build. The California Air Resources Board estimates that statewide savings of at least 26 million tons of emissions reductions can be realized by 2020 through wise building design. Further, energy efficient elements like daylighting can increase productivity and academic proficiency by more than 20 percent. With more than 1,100 high schools in the state, modest actions will yield significant emission reductions and savings in operating costs.

**Climate for Community: Good for the environment, families and small businesses.**

Online at: [www.edf.org/C4C](http://www.edf.org/C4C) and [www.sfpower.org](http://www.sfpower.org)

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