



# Fayetteville Public Schools Energy Programs

Summer Energy Academy – June 2014  
Dana Smith, FPS Sustainability Coordinator



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# FPS By the Numbers

- 9,000 students
- 14 schools
- 1400+ teachers and staff
- 1.4 million sq. feet building area
- \$1.6 million annually on utilities
  - \$1.1 electricity
  - \$280K water/sewer
  - \$250K natural gas
- 30% waste diversion





# Sustainability Office Initiatives

- Energy Conservation
- Wildlife Habitat Certification
- Waste Reduction
- Green Teams
- LEED Education
- Indoor Environmental Quality
- Seed to Student:
  - FPS Farm to School
  - School Gardens



# Green Team

- Started in 2006
- Student environmental clubs at each school
- Leader meeting / professional development each semester
- End of Year Celebration Event
- Annual Awards
- Eco-Hero Program
- Current Energy Project:
  - Light and small appliance count
  - Replace incandescents to CFLs (through Swepeco/Clear Result incentive program)



# District Energy Challenge

- 2012, 2013
- Month long challenge measuring kWh – % change over baseline
- \$1,000 first place; \$500 second place (partnered with local utilities for sponsorship in 2013 & 2014)



## FPS Energy Challenge

March 1 – 31, 2013

**Goal: Reduce electricity consumption.**  
**Award: Up to \$1,000 for environmental improvements in your school.**

Schools who take the Energy Challenge will work together to reduce electricity consumption over four weeks. Savings will be tracked during this time, but energy conservation will continue long after the results are announced!

The school's total electricity consumption for the month will be compared to a baseline established from three years of data. The school with the greatest percentage reduction will receive \$1,000 to reinvest in an environmentally friendly school improvement or project. The second place school will receive \$500.

Winners will be announced at the annual Green Team Celebration in April 2013.

#### Questions? Contact:

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# Energy Management

- SchoolDude Utility Direct and Energy Star Portfolio Manager
- In-house Energy Management System – 1983–1995
- 1997/98 – Trane Tracer BAS Installed
- Since 2000:
  - Operate air systems for optimum temperature and comfort when buildings occupied (7am – 4pm)
  - 48 hour advance override required
  - Temperature Setpoints:

	Occupied	Unoccupied
Heating	74°	60°
Cooling	72°	80°





# Energy Management

## Lighting:

- Fluorescent lighting updated from T12 to T8 GE Ecolux (2000-2004)
- High pressure sodium lights updated to T5 (2010-2013)
- Motion activated light switches in 4 newest schools

## HVAC:

- Upgraded when replaced (80% more efficient exterior units, 94% interior units)
- Air filters changed 3 times a year

## Building Envelope:

- TPO roofing (white membrane) adopted for all roof replacements
- Low-e windows used when replacing a bank of windows



# LEED Schools

- 3 LEED Schools in District:
  - Butterfield Trail Elementary (LEED Certified)
  - Happy Hollow Elementary (LEED Certified)
  - Fayetteville High School Phase 1 (LEED Silver)
- School Board Approval and Support
- Energy Savings + Integrated Design







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