



Utility Management Report

Year Five of Program

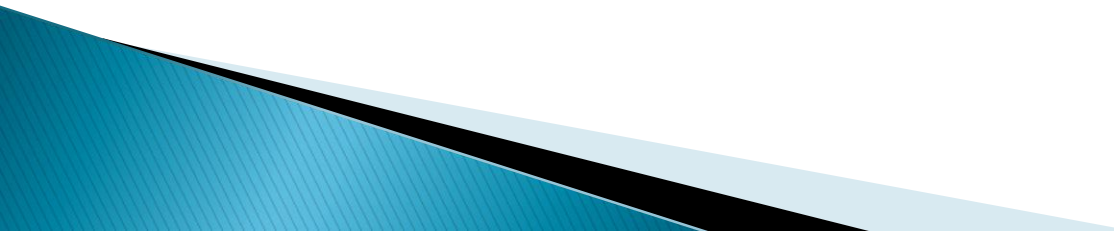
Annual Report

July 2010 – June 2011



TDIndustries

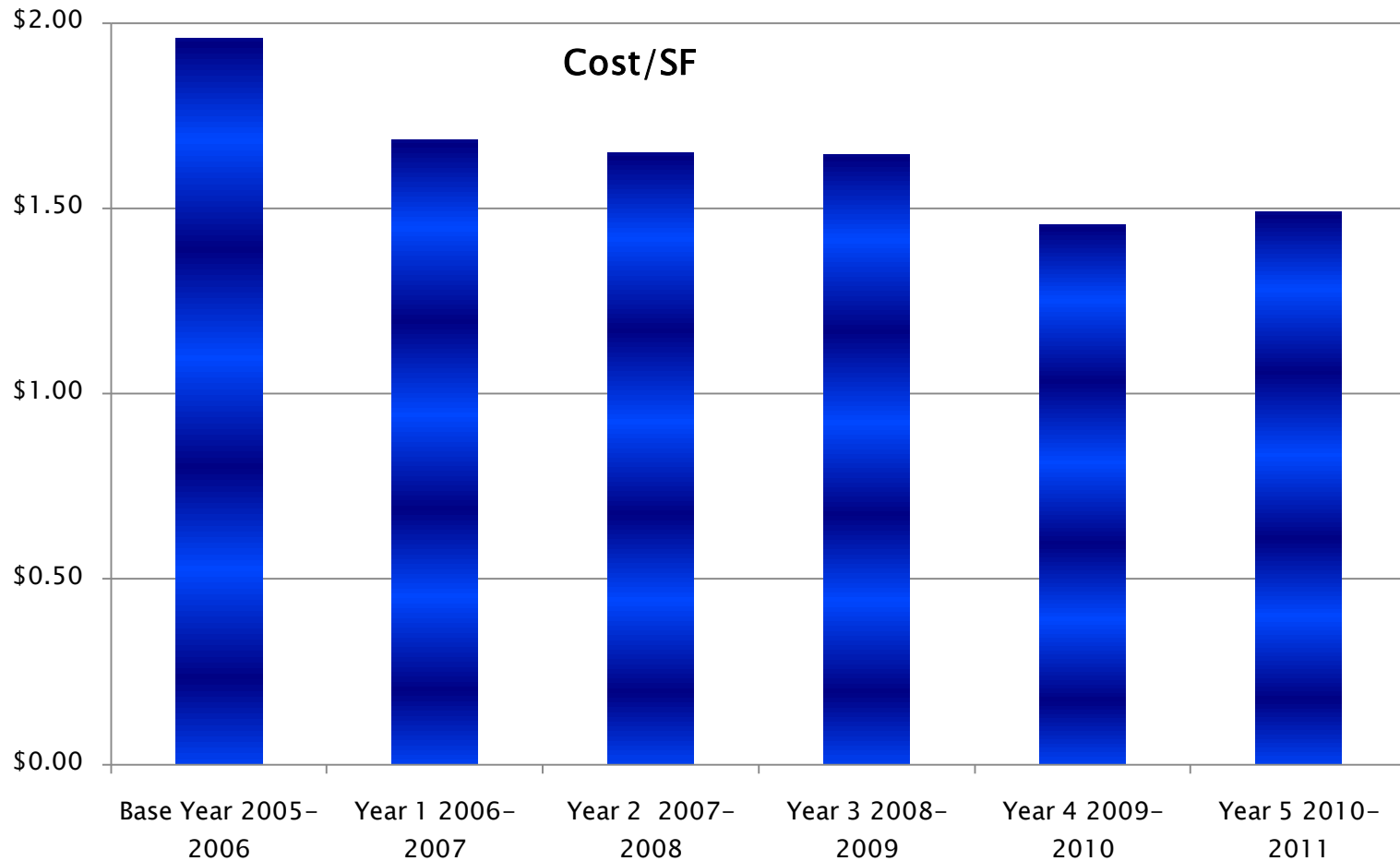
Accomplishments in Year 5

- Conducted monthly on-site analysis of utility data to identify areas of concern followed by immediate investigation and/or corrective action resulting in cost savings.
 - Continued discipline to tightly manage HVAC Systems through the EMS systems.
 - Avoided over \$70K (+1%) in utility cost for summer school due to Friday closings
 - Completed Implementation of Intelligent Irrigation Control on twelve campuses.
- 

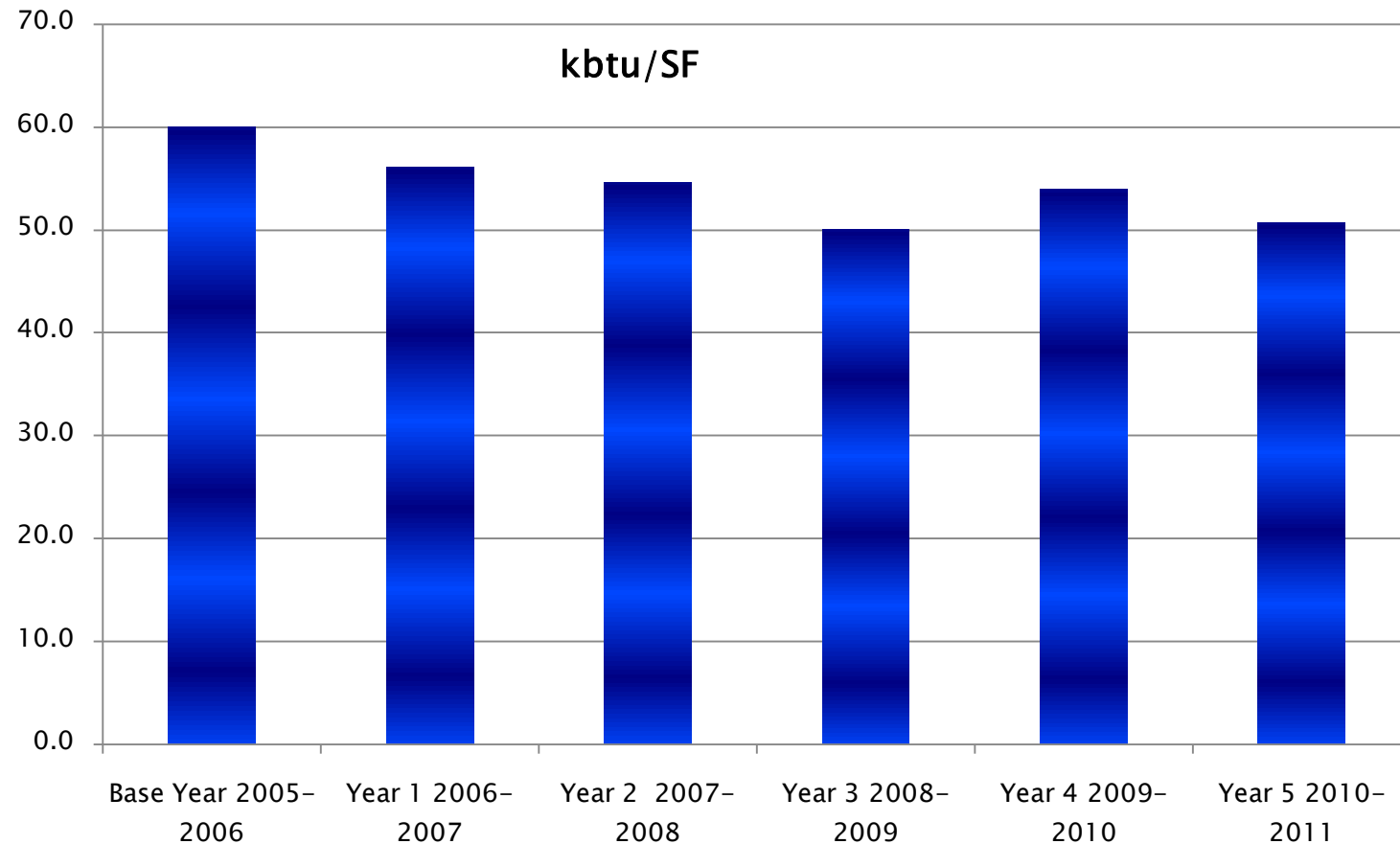
Summary of Utility Cost and Usage (July 2010 – June 2011)

Utility	Base Year 2005-2006	Year 1 2006-2007	Year 2 2007-2008	Year 3 2008-2009	Year 4 2009-2010	Year 5 2010-2011
Total Utility Cost	\$6,957,534	\$6,594,207	\$6,594,647	\$7,172,309	\$6,616,897	\$6,993,558
Total Energy Mbtu	213,131	219,700	218,224	218,121	245,065	237,958
Total District SqFt	3,553,417	3,916,124	3,996,458	4,357,383	4,545,055	4,693,677
Total Cost/SqFt	\$1.96	\$1.68	\$1.65	\$1.65	\$1.46	\$1.49
Energy Use Index kBtu/SF	60.0	56.1	54.6	50.1	53.9	50.7

Utility Cost Comparison (July 2010 – June 2011)



Energy Use Comparison (July 2010 – June 2011)



Total Cost Comparison By Utility (July 2010 – June 2011)

Category	Year 4 2009-2010	Year 5 2010-2011	% change Y4 to Y5	Cost Change Y4 to Y5
Electric	\$4,498,751	\$4,685,142	4.1%	\$186,391
Gas	\$566,112	\$488,494	-13.7%	-\$77,618
Water	\$895,387	\$1,097,105	22.5%	\$201,718
Refuse	\$656,647	\$722,817	10.1%	\$66,170
TOTAL	\$6,616,897	\$6,993,558	5.7%	\$376,661

Summary of Utility Costs and Consumption

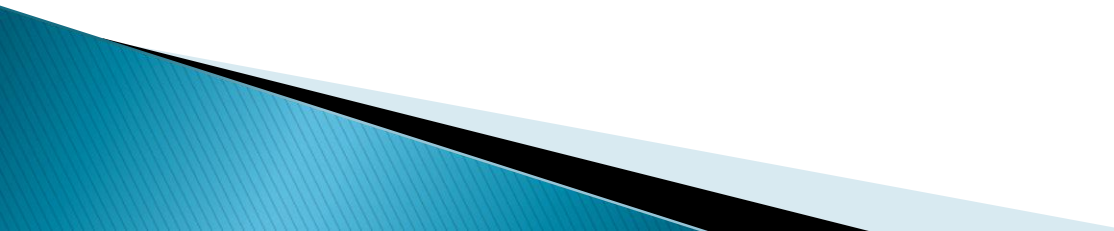
Energy Consumption (Electricity and Gas):

- 7 facilities saw an overall increase in consumption
- 32 facilities saw a decrease in overall consumption

Water Consumption:

- 27 facilities saw an overall increase in water consumption
- 12 facilities saw an overall decrease in consumption

Utility Cost:

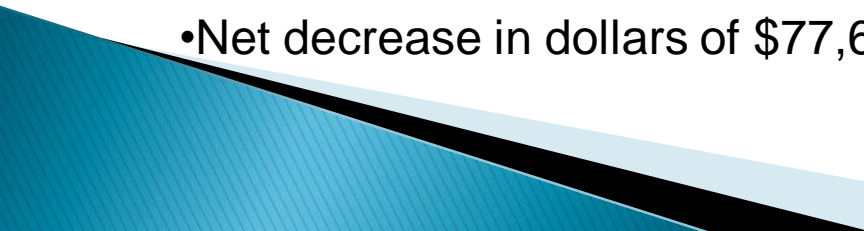
- 26 facilities saw an overall increase in cost
 - 13 facilities saw an overall decrease in cost
- 

Analysis by Utility Type

Electricity:

- Unit cost (rate) increased 2.9%
- Consumption increased by 1.2%
- 19.9% more cooling degree days - significant
- Increase SF of 148,622 with Gonzalez and Cross Oaks additions
- Net increase in dollars of \$186,391

Natural Gas:

- Unit cost (rate) decreased by 2.8%
 - Consumption decreased by 11.2%
 - 26.7% less heating degree days - significant
 - Net decrease in dollars of \$77,618
- 

Analysis by Utility Type

Water:

- Unit cost (rate) decreased 0.4%
- Consumption increased 23.0%
- Rainfall decreased by 4.6% / down 1.76 inches
- Net increase in dollars of \$201,718

Refuse:

- Net increase in dollars of \$66,170

Accomplishments through first 5 Years

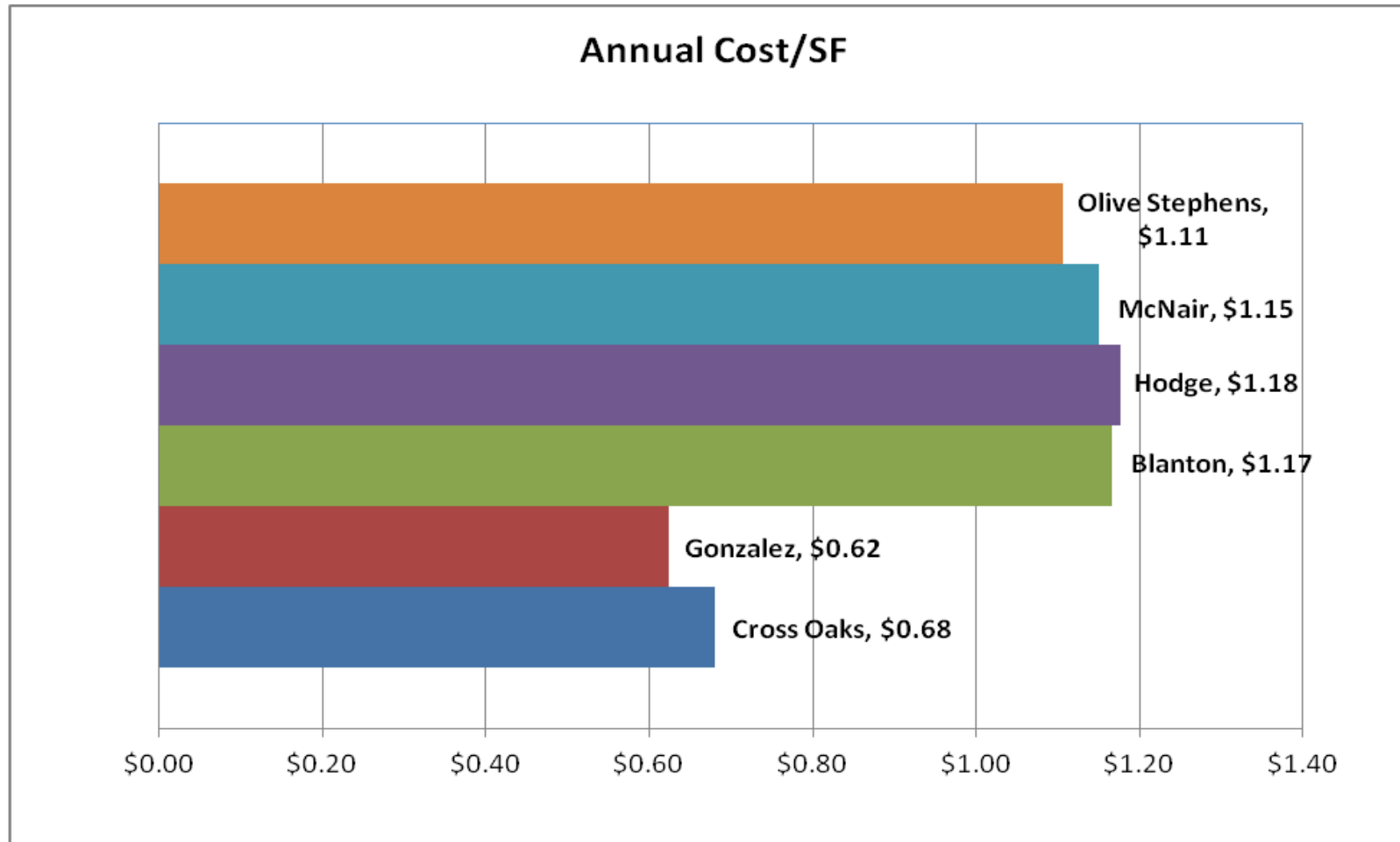
- **ECONOMIC IMPACT**

- Over \$6.6 million in savings in 5 year program based on Base Year SF.

- **ENVIRONMENTAL IMPACT**

- 6602 TONS Reduction of CO2
 - 1250 acres of trees planted
 - 1100 cars removed from the road
- 

Geothermal / Traditional HVAC Cost Comparison



Looking Forward.....

- Continue to tightly manage building operation through the use of information and the EMS/Control System
 - Over 5,000 Pieces of HVAC Equipment
 - Over ~ 1000 Individual Points / Zones of Irrigation Control
- Phase III Opportunities
 - Exterior Lighting Retrofit – Wall Pack Lights
 - Intelligent Irrigation Control – 12 School Sites
 - HVAC Retrofit – Guyer Coaches Office
 - *Selective Replacement of Large Boilers / Hot Water Heaters*
 - Some of these submitted to SECO Cool Schools Grant Program

\$125,000 / \$139,000
Estimated Annual
Savings

Thank You / Q&A.....

- We Appreciate the Opportunity to be Part of the Denton ISD Team

