

Utility Management Report Report for FY July 2013 – June 2014 December 9, 2014



| | Fiscal Year 2009-2010 | Fiscal Year 2010-2011 | Fiscal Year 2011-2012 | Fiscal Year 2012-2013 | Fiscal Year 2013-2014 (Includes Myers) |
|--------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|---|
| Total Utility Cost \$6,957,534 | \$6,616,897 | \$6,993,558 | 7,114,894 | \$6,806,387 | \$7,422,598 |
| Total Energy Mbtu 213,131 | 245,065 | 237,958 | 235,792 | 235,623 | 253,248 |
| Total District SqFt 3,553,417 | 4,528,449 | 4,677,071 | 4,689,543 | 4,761,856 | 4,943,330 |
| Total Cost/SqFt \$1.96 | \$1 .46 | \$1.50 | \$1.52 | \$1.43 | \$1.50 |
| Energy Use Index kBtu/SF 60.0 | 54.1 | 50.9 | 50.3 | 49.5 | 51.2 |

| | | | % change | Cost Change | New Schools (Myers) |
|----------------|-------------------------|-------------------------|----------|-------------------|---------------------------|
| | July 2013- June 2014 | July 2012- June 2013 | | | |
| Electric | \$4,762,126 | \$4,591,329 | 3.7% | \$170,797 | \$108,319 |
| Gas | \$622,194 | \$408,440 | 52.3% | \$213,75 4 | \$3,357 |
| Domestic Water | \$647,064 | \$620,636 | 4.3% | \$26,428 | \$7,590 |
| Irrigation | \$478,971 | \$538,912 | -11.1% | -\$59,941 | \$63,555 |
| Refuse | \$705,057 | \$647,069 | 9.0% | \$57,988 | \$24,365 |
| TOTAL | \$7,215,412 | \$6,806,386 | 6.0% | \$409,026 | \$207,186 |

| Effect of Rate Changes | | | | | | | | | |
|------------------------|--------------------------|---|--|--------------------|--|--|--|--|--|
| Category | Fiscal Year 2013-2014 | FY 2013-2014 Cost Calculated with Current Unit Cost | FY 2013-2014 Cost Calculated on FY 2012-2013 Unit Cost | Cost Difference | | | | | |
| Electric (kWh) | 50,113,253 | \$4,870,445 | \$4,650,756 | \$219,689 | | | | | |
| Gas (Therm) | 822,656 | \$625,551 | \$502,839 | \$122,712 | | | | | |
| Dom Water (CCF) | 66,959 | \$654,654 | \$657,581 | -\$2,927 | | | | | |
| Irrig Water (CCF) | 121,174 | \$542,526 | \$452,610 | \$89,916 | | | | | |
| Total: | | \$6,693,176 | \$6,263,786 | \$429,390 | | | | | |

Analysis by Utility Type

Electricity:

- Unit cost (rate) increased 4.8%
- Consumption <u>decreased</u> by 1.1%
- same number of cooling degree days
- Net increase in dollars of \$170,797

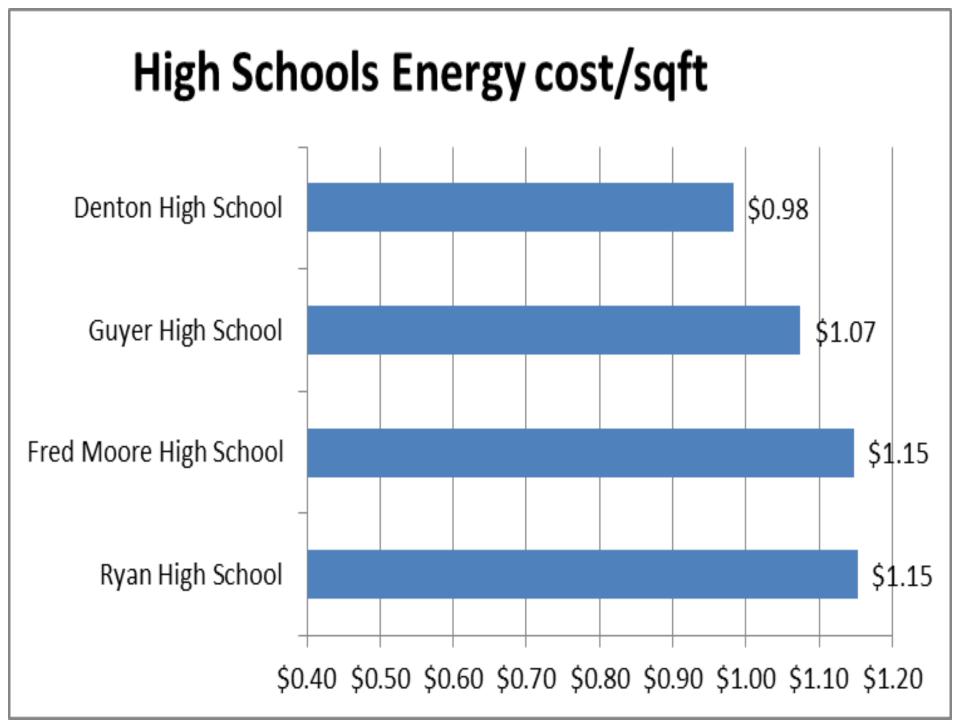
Natural Gas:

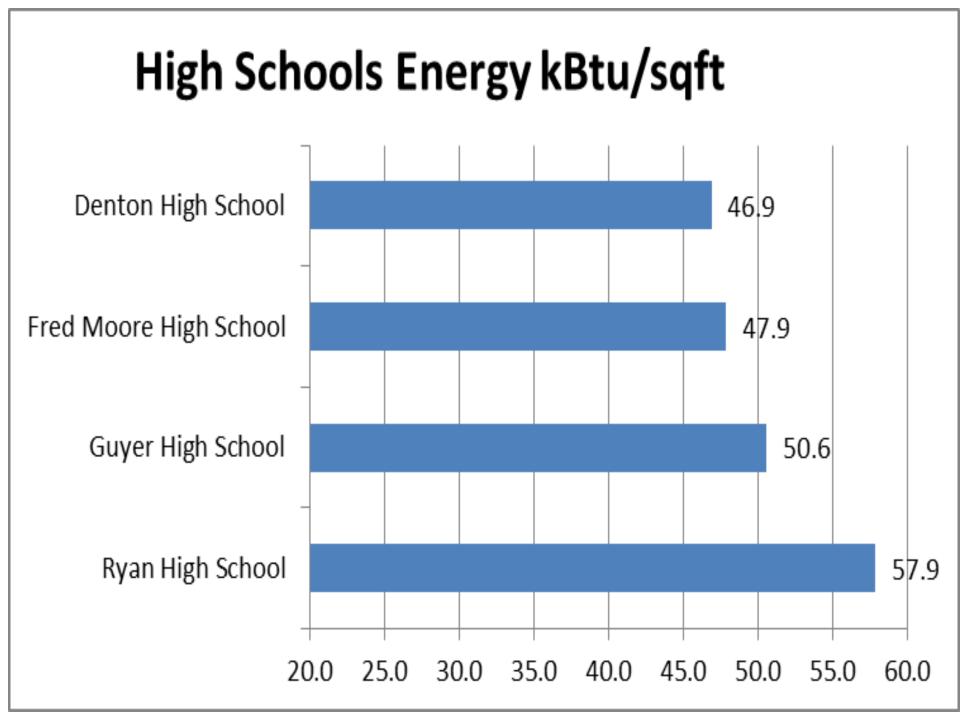
- •Unit cost (rate) increased by 23.7%
- •Consumption increased by 23.1%
- •27.3% more heating degree days
- •Net increase in dollars of \$213,754

Analysis by Utility Type

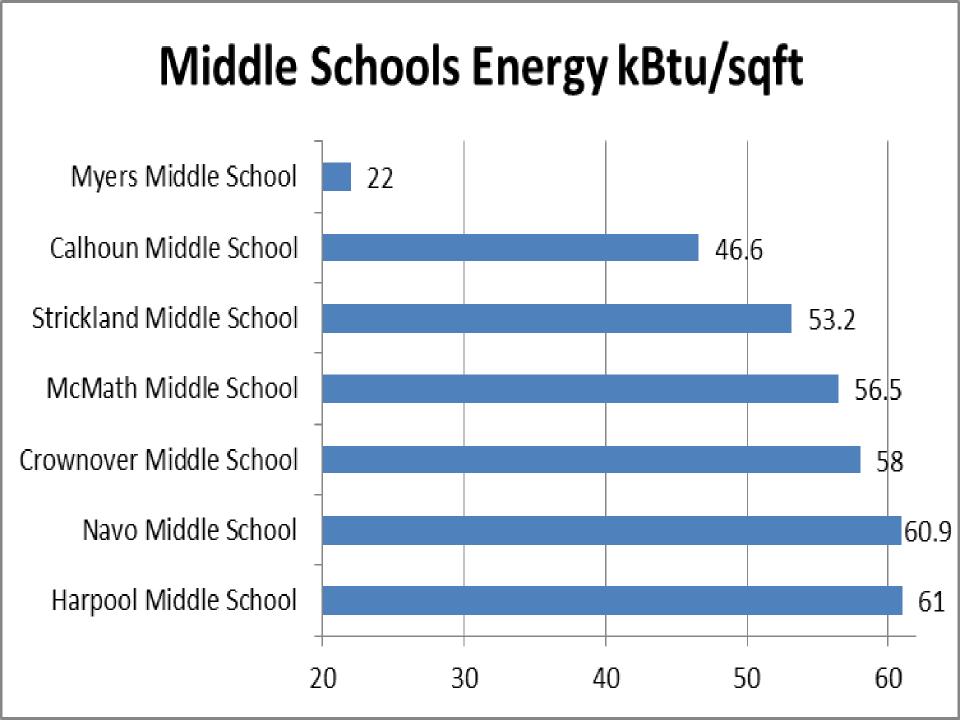
Water:

- Domestic Unit cost (rate) decreased 0.5%
- Domestic consumption increased 4.8%
- Irrigation Unit cost (rate) increased 12.1%
- Irrigation consumption <u>decreased</u> 20.7%
- Rainfall increased by 2.7% / up 0.65 inches
- Domestic net increase in dollars of \$26,428
- Irrigation net <u>decrease</u> in dollars of \$59,941
 Refuse:
- Net increase in dollars of \$57,988

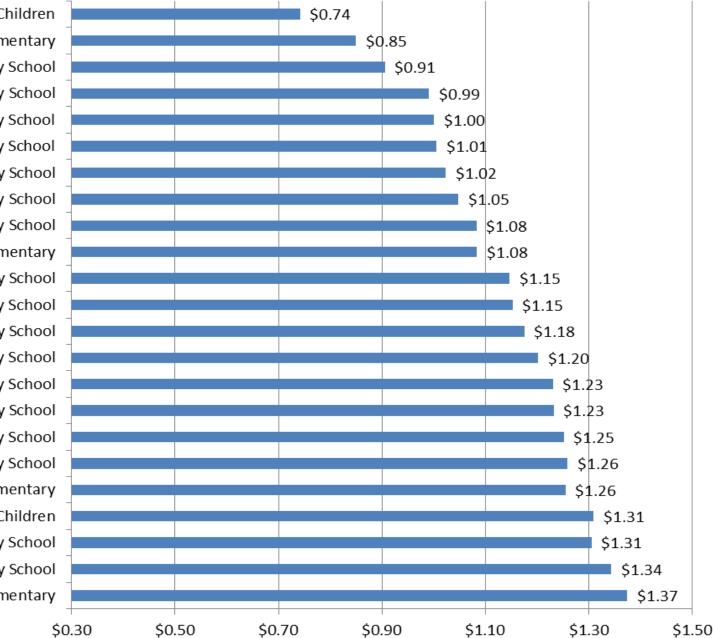




Middle Schools Energy cost/sqft \$0.62 Myers Middle School Calhoun Middle School \$0.97 Strickland Middle School \$1.09 Crownover Middle School \$1.16 \$1.21 McMath Middle School Navo Middle School \$1.22 \$1.29 Harpool Middle School \$0.40 \$0.80 \$0.60 \$1.00 \$1.20 \$1.40



Elementary Schools Energy cost/sqft

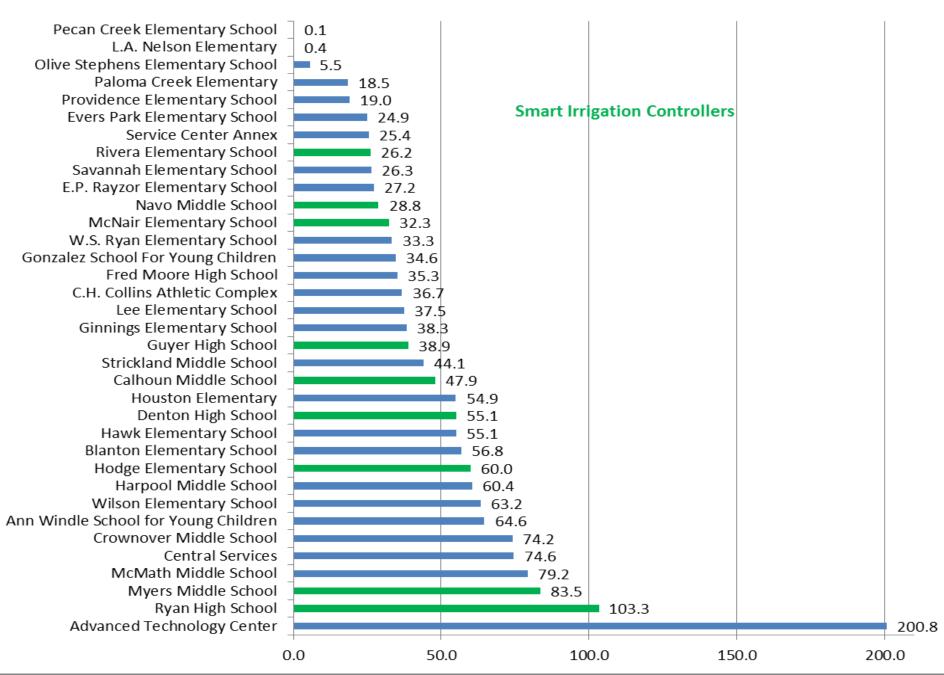


Gonzalez School For Young Children Cross Oaks Elementary Pecan Creek Elementary School Wilson Elementary School Providence Elementary School Savannah Elementary School E.P. Rayzor Elementary School **Rayzor Elementary School** Borman Elementary School Houston Elementary Lee Elementary School W.S. Ryan Elementary School **Ginnings Elementary School Olive Stephens Elementary School Blanton Elementary School** Hawk Elementary School **Rivera Elementary School** McNair Elementary School Paloma Creek Elementary Ann Windle School for Young Children Hodge Elementary School **Evers Park Elementary School** L.A. Nelson Elementary

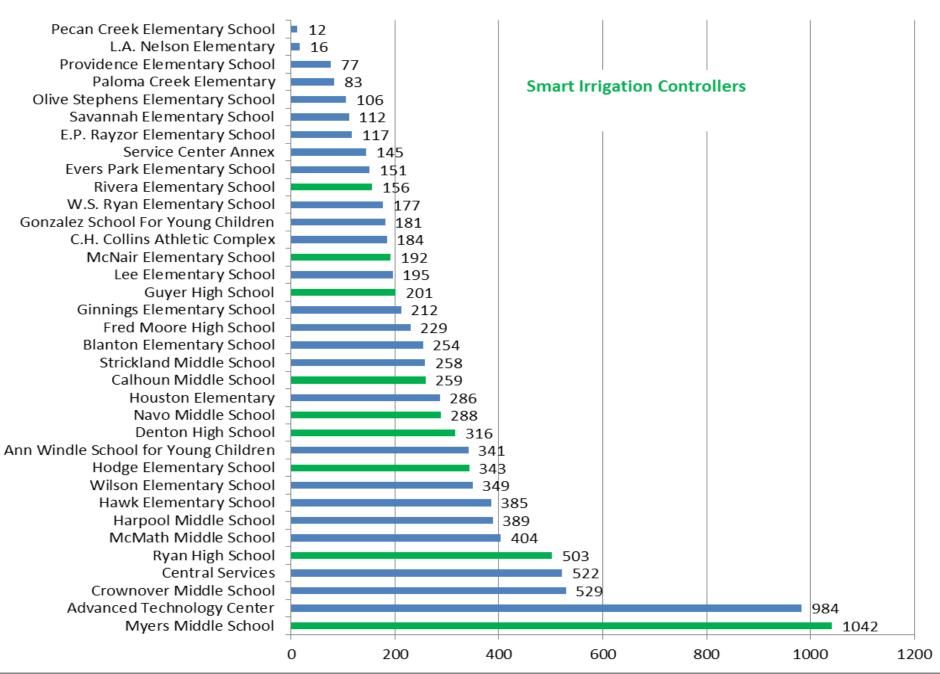
Elementary Schools Energy kBtu/sqft

Gonzalez School For Young Children 26.7 Cross Oaks Elementary 32.4 Pecan Creek Elementary School 36.4 E.P. Rayzor Elementary School 37.B Wilson Elementary School 40.7 Savannah Elementary School 42.2 Providence Elementary School 42.6 W.S. Ryan Elementary School 44.6 Rayzor Elementary School 45.3 Borman Elementary School 46.1 Houston Elementary 48.2 L.A. Nelson Elementary 50.8 **Olive Stephens Elementary School** 51 Hawk Elementary School 51.4 **Blanton Elementary School** 51.8 Paloma Creek Elementary 51.8 **Ginnings Elementary School** 55 Lee Elementary School 55.4 McNair Elementary School 55.7 Ann Windle School for Young Children 57 **Rivera Elementary School** 58.8 Hodge Elementary School 60.9 **Evers Park Elementary School** 67.8 20 30 40 50 60 70

Facilities with Irrigation Meters kGal/Zone



Facilities with Irrigation Meters \$/Zone



Recent and Future Activities

- Evaluated and reported the economic and technical viability of retrofitting Denton Guyer with LED lighting from a lighting vendor, not recommended at this time
- Detected and fixed water leaks at Calhoun, Evers Park and ATC
- Evaluated low energy use at Hawk and determined the utility electric meter was off, corrected by utility
- Presented thermal storage (peak load shifting) opportunity to DME
- Evaluated demand response opportunities at Oncor served schools
- Staff is currently evaluating the Building Performance Management pilot program
- Continuing to explore other energy conservation opportunities to present to the Board as technologies become more economic.

Thank You / Q&A.....