Executive Summary

- 1) The total utility cost for FY 2011-2012, increased by \$121,336 (1.7%) compared to the FY 2010-2011. Water rates increased while gas and electricity rates <u>decreased</u> slightly. The main factor in the increased cost was an increase in electricity use due to a significant increase in cooling degree days, and an increase in irrigation water use due to the increase in cooling degree days and a decrease in rainfall.
- 2) The utility usage for FY 2011-2012 compared to FY 2010-2011 is a follows:
 - a) Electric usage increased by 6.5%
 - b) Natural gas usage decreased by 17.7%
 - c) Water usage increased by 1.6%
- 3) Utility rates decreased for electricity and gas and increased for water, resulting in a slight <u>decrease</u> in cost of \$141,581.
 - a) Electric unit cost <u>decreased</u> by 2.9%.
 - b) Natural gas unit cost decreased by 7.0%.
 - c) Water unit cost increased by 4.8%.

4) Weather

- a) There was a 25.7% increase in the number of cooling degree days, and a 14.7% decrease in heating degree days.
- b) Rainfall over the period <u>decreased</u> 5.62 (15.3%) inches from the prior year. More significant than the annual total, the summer draught was even more significant with only 1.71 inches of rain in FY 2011-2012 compared to 14.28 inches in FY 2010-2011.

Utility Costs Comparison to FY 2010-2011

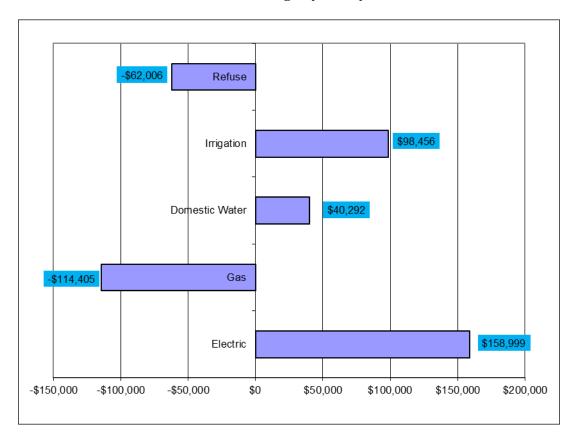
The total utility cost increased by \$121,336. Table 1 and Figure 1 provide a cost breakdown by category.

Table 1

Category	Fiscal Year	Fiscal Year	% change	Cost
	2010-2011	2011-2012		Change
Electric	\$4,685,142	\$4,844,141	3.4%	\$158,999
Gas	\$488,494	\$374,089	-23.4%	-\$114,405
Domestic Water	\$615,203	\$655,495	6.5%	\$40,292
Irrigation	\$481,902	\$580,358	20.4%	\$98,456
Refuse	\$722,817	\$660,811	-8.6%	-\$62,006
TOTAL	\$6,993,558	\$7,114,894	1.7%	\$121,336

Note: The changes in the cost of utilities contributed to a <u>decrease</u> in cost. See tables 3 and 4 for a detailed breakdown.

Figure 1 Cost Change by Utility



Utility Cost Comparison by Facility

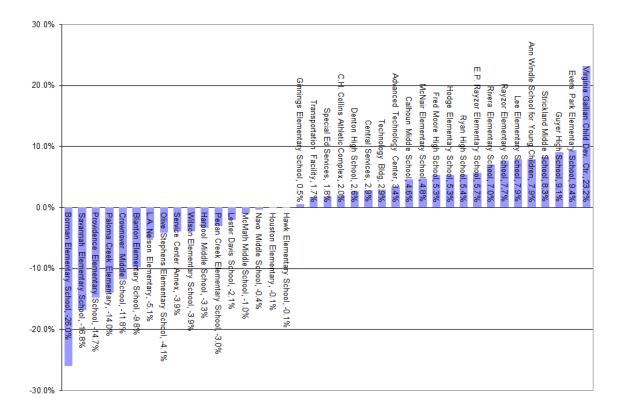
The facilities listed below experienced the largest increase and <u>decrease</u> in total utility cost.

Table 2
Utility Cost Increase/Decrease

Facility	% Change
Virginia Gallian Child Development	23%
Evers Park Elementary School	9%
Guyer High School	9%
Providence Elementary School	-14%
Savannah Elementary School	-16%
Borman Elementary School	-26%

Figure 2

Percent Change of Utility Cost



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Utility Unit Cost Comparison

Table 3 lists the average unit cost for electricity, natural gas and water.

Table 3
Utility Unit Cost Comparison

Utility	Fiscal Year	Fiscal Year	Change	% Change
	2010-2011	2011-2012		
Electric, \$/kwh	\$0.096295	\$0.093518	-\$0.002776	-2.9%
Gas, \$ per Therm	\$0.680840	\$0.633469	-\$0.047371	-7.0%
Water, \$/CCF	\$2.749425	\$2.882260	\$0.132835	4.8%

Table 4 details the impact of the unit cost change on the cost of electricity, natural gas and water.

Table 4
Utility Cost Comparison

Category	FY 2011-2012	FY 2011-	FY 2011-	Cost
		2012 Cost	2012 Cost	Difference
		Calculated	Calculated	
		with Current	on FY 2010-	
		Unit Cost	2011 Unit	
			Cost	
Electric (kWh)	51,798,919	\$4,844,141	\$4,987,957	-\$143,816
Gas (Therm)	590,540	\$374,089	\$402,063	-\$27,974
Water (CCF)	227,424	\$655,495	\$625,285	\$30,210
Total:		\$5,873,725	\$6,015,306	-\$141,581

Energy Use Comparison to FY 2010-2011

The total energy use decreased by 2,166 MBtu (0.9%) from FY 2011-2012 to FY 2010-2011. This is due primarily to the <u>decrease</u> in gas consumption from the reduction of heating degree days.

Energy Use Comparison by Facility

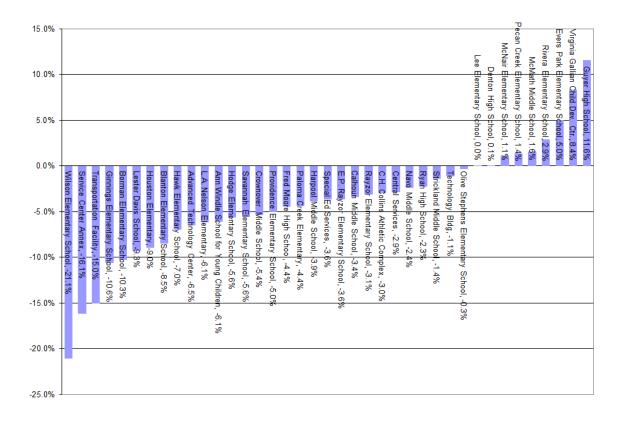
The facilities listed below in Table 5 experienced the largest increase and <u>decrease</u> in total energy use.

Table 5
Energy Use Increase/Decrease

Facility	% Change
Guyer High School	11%
Virginia Gallian Child Development	8%
Evers Park Elementary School	5%
Transportation Facility	-15%
Service Center Annex	-16%
Wilson Elementary School	-21%

Figure 3

Percent Change of Energy Use



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Domestic Water Use Comparison By Facility

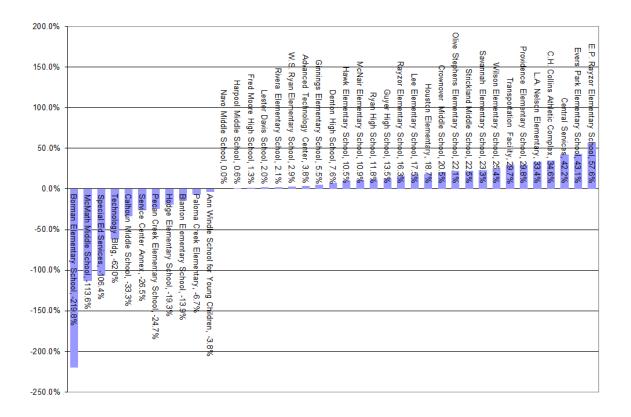
The facilities listed below in Table 6 experienced the largest increase and <u>decrease</u> in domestic water use.

Table 6
Water Use Increase/Decrease

Facility	% Change
E.P. Rayzor Elementary School	57%
Evers Park Elementary School	43%
Central Services	42%
Special Ed Services	-106%
McMath Middle School	-113%
Borman Elementary School	-219%

Figure 4

Percent Change of Domestic Water Use



Irrigation Water Use Comparison By Facility

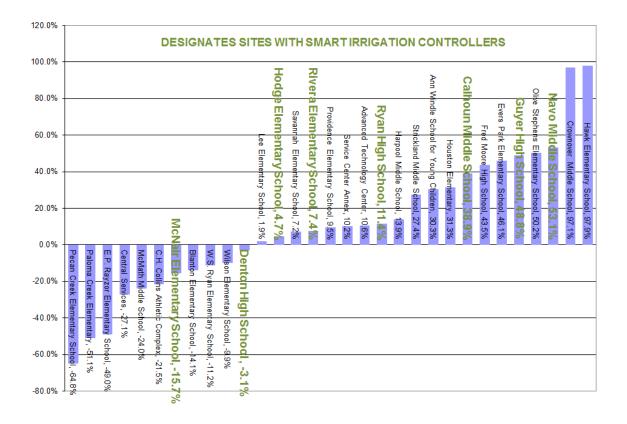
The facilities listed below in Table 7 experienced the largest increase and <u>decrease</u> in irrigation water use.

Table 7
Water Use Increase/Decrease

Facility	% Change
Hawk Elementary School	97%
Crownover Middle School	97%
Navo Middle School	53%
E. P. Rayzor Elementary School	-49%
Paloma Creek Elementary School	-51%
Pecan Creek Elementary School	-64%

Figure 5

Percent Change of Irrigation Water Use



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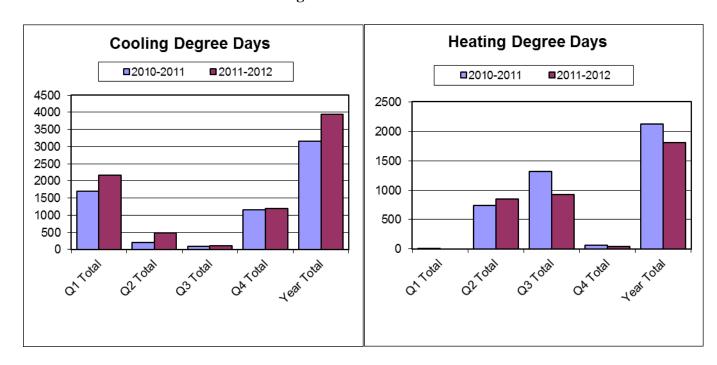
Weather Comparison to FY 2010-2011

There was a 25.1% increase in the number of cooling degree days, and a 14.7% <u>decrease</u> in heating degree days. Rainfall over the period <u>decreased</u> 5.62 (15.3%) inches from the prior year. More significant than the annual total, the summer draught was even more significant with only 1.71 inches of rain in FY 2011-2012 compared to 14.28 inches in FY 2010-2011.

Table 8 Weather Data

	Cooling De	egree Days	Heating Degree Days		
	2010-2011 2011-2012		2010-2011	2011-2012	
Q1 Total	1705	2172	3	0	
Q2 Total	197	478	741	847	
Q3 Total	101	103	1317	922	
Q4 Total	1152	1195	61	41	
Year Total	3,155	3,948	2,122	1,810	
%Change	25.1%		-14	.7%	

Figure 6



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Table 9 Rainfall Data

	Rainfall (in.)				
	Fiscal Year	Fiscal Year			
	2010-2011	2011-2012			
Q1 Total	14.28	1.71			
Q2 Total	4.71	3.98			
Q3 Total	4.3	17.78			
Q4 Total	13.25	7.48			
Total	36.54	30.95			
%Change	-15.3%				

Summary of Utility Cost and Usage

Table 10 details the ECI (cost per square feet) and the EUI (Energy use per square feet) since the start of the program. As you can see from the table, the ECI is 22.3% lower than the base year and the EUI is 15.7% lower than the base year.

Table 10

Summary of Utility Cost and Usage							
Utility	Fiscal						
	Year						
	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012
Total Utility Cost	\$6,957,534	\$6,594,207	\$6,594,647	\$7,172,309	\$6,616,897	\$6,993,558	\$7,114,894
Total Energy Mbtu	213,131	219,700	218,224	218,121	245,065	237,958	235,792
Total District SqFt	3,553,417	3,916,124	3,996,458	4,318,052	4,499,603	4,648,225	4,660,667
Total Cost/SqFt	\$1.96	\$1.68	\$1.65	\$1.66	\$1.47	\$1.50	\$1.53
Energy Use Index	60.0	56.1	54.6	50.5	54.5	51.2	50.6
kBtu/SF							

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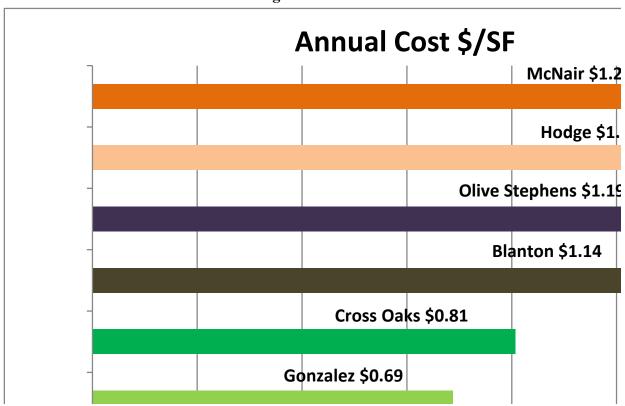
HVAC Systems Comparison

The District recently built two schools (Cross Oaks and Gonzalez) with geothermal heat pumps HVAC systems. This section of the report will compare the energy use and cost of these two new systems with existing schools of similar size. Table 11 and Figure 7 below show the comparison from FY 2010-2011 to FY 2011-2012.

Table 11 HVAC System Comparison

School	SF	HVAC System	Electricity	Gas	kbtu/SF	Annual	
			kWh	therms		Cost	Annual
							Cost/SF
Gonzalez	60,391	Geothermal	435,232	1286	24.6	\$41,509	\$0.69
Cross Oaks	88,231	Geothermal	748,256	1909	28.9	\$71,171	\$0.81
Blanton	80,334	RTUs	927,312	7,943	39.4	\$91,736	\$1.14
Olive Stephens	80,334	RTUs	978,000	6344	41.6	\$95,462	\$1.19
Hodge	87,015	Chilled Water	1,034,887	10,931	40.6	\$103,687	\$1.19
McNair	88,551	Chilled Water	1,071,887	11,429	41.3	\$107,462	\$1.21

Figure 7



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Facilities Report

		5 YEAR	SQUARE FEET	TOTALS	
FACILITY	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year
	2007-2008	2008-2009	2009-2010		2011-2012
Advanced Technology Center	120,700	120,700	120,700	120,700	120,700
Ann Windle School for Young Children	41,200	41,200	41,200	41,200	41,200
Blanton Elementary School	0	80,334	80,334	80,334	80,334
Borman Elementary School	78,624	78,624	78,952	78,952	78,952
Calhoun Middle School	216,363	216,363	235,174	235,174	235,174
Central Services	22,368	22,368	22,368	22,368	22,368
Clear Creek	16,173	16,173	16,173	16,173	16,173
CH Collins Athletic Complex	78,059	78,059	78,059	78,059	78,059
Community Ed Bldg	3,938	3,938	3,938	3,938	3,938
Cross Oaks Elementary School	0	0	0	88,231	88,231
Crownover Middle School	161,200	161,200	161,200	161,200	161,200
Denton High School	451,770	451,770	486,881	486,881	486,881
EP Rayzor Elementary School	76,093	76,093	76,093	76,093	77,725
Evers Park Elementary School	81,655	81,655	81,655	81,655	81,655
Fred Moore High School	28,487	28,487	28,487	28,487	28,487
Ginnings Elementary School	80,403	80,403	80,403	80,403	80,403
Gonzalez SFYC	00,403	00,403	00,403	60,391	60,391
Guyer High School	426,380	426,380	426,380	426,380	426,380
Harpool Middle School	0	161,327	161,327	161,327	161,327
Hawk Elementary School	81,149	81,149	81,149	81,149	81,149
Hodge Elementary School	71,608	71,608	87,015	87,015	87,015
Houston Elementary School	73,631	73,631	73,631	73,631	73,631
LA Nelson Elementary School	80,334	80,334	80,334	80,334	80,334
Landfill/Wastewater		00,334	00,334	00,334	
	0 83,900	83,900	83,900	83,900	0 85,592
Lee Elementary School	32,563	32,563	32,563	32,563	32,563
Lester Davis School McMath Middle School	158,567	158,567	158,567	158,567	158,567
McNair Elementary School Navo Middle School	72,376	72,376	88,551	88,551	88,551
	162,095	162,095	162,095	162,095	162,095
Olive Stephens Elementary School	0 224	80,334	80,334	80,334	80,334
Paloma Creek Elementary School PDC	80,334	80,334	80,334	80,334	80,334
	70 207	70 207	70 207	70 207	00.000
Pecan Creek Elementary School	78,397	78,397	78,397	78,397	80,029
Providence Elementary School	78,853	78,853	78,853	78,853	80,485
Rayzor Elementary School	93,269	93,269 74,244	99,565	99,565	99,565
Rivera Elementary School	74,244		84,598	84,598	84,598
Ryan High School	344,159	344,159	423,228	423,228	423,228
Savannah Elementary School	80,334	80,334	80,334	80,334	80,334
Norm Sisk Service Center Annex	59,048	59,048	59,048	59,048	59,048
Special Ed Services	6,528	6,528	6,528	6,528	6,528
Strickland Middle School	192,039	192,039	192,039	192,039	194,551
Technology Building	16,173	16,173	16,173	16,173	16,173
Transportation Facility	14,336	14,336	14,336	14,336	14,336
Virginia Gallian Child Developent Center	0	8,218	8,218	8,218	8,218
Wellness Center	5,325	5,325	5,325	5,325	5,325
Wilson Elementary School	89,071	89,071	89,071	89,071	90,791
WS Ryan Elementary School	76,093	76,093	76,093	76,093	77,725
Total	3,987,839	4,318,052	4,499,603	4,648,225	4,660,677

2012 Facilities Rental Table

Facility List	Energy Cost (\$/Hour)					CURRENT	ADJUSTED
	2010	2012 Cooling	2012 Heating	2012 MAX	INCREASE OR DECREASE	UTILITY STATUS C RENTAL FEE \$/HR	UTILITY STATUS C RENTAL FEE \$/HR
Cafeteria							
High Schools	\$5.00	\$4.48	\$4.46	\$4.48	-10%	\$125	\$124.48
Middle Schools	\$4.51	\$4.72	\$3.59	\$4.72	5%	\$100	\$100.21
Elementary Schools	\$5.00	\$3.73	\$4.46	\$4.46	-11%	\$50	\$49.46
Gymnasium							
Ryan High School	\$14.30	\$14.97	\$13.08	\$14.97	5%	\$150	\$150.67
Denton High School	\$7.47	\$7.80	\$4.97	\$7.80	4%	\$125	\$125.33
Middle Schools	\$8.65	\$9.14	\$5.48	\$9.14	6%	\$100	\$100.49
Elementary Schools	\$3.82	\$4.05	\$2.92	\$4.05	6%	\$50	\$50.23
Auditorium							
Ryan High School	\$6.42	\$6.78	\$3.68	\$6.78	6%	\$100	\$100.36
Denton High School	\$6.33	\$6.61	\$3.91	\$6.61	4%	\$125	\$125.28
Middle Schools	\$4.97	\$5.12	\$3.08	\$5.12	3%	\$75	\$75.15
Lecture Hall/Dance Studio							
Ryan High School	\$8.75	\$9.24	\$1.84	\$9.24	6%	\$50	\$50.49
Classrooms							
Ryan High School	\$5.39	\$5.70	\$0.44	\$5.70	6%	N/A	N/A
Denton High School	\$0.54	\$0.54	\$0.46	\$0.54	-1%	N/A	N/A
Middle Schools	\$0.57	\$0.00	\$0.47	\$0.47	-18%	N/A	N/A
Elementary Schools	\$0.59	\$0.00	\$0.47	\$0.47	-21%	N/A	N/A

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^{1.) 2012} Gas cost based on FY2011-2012 average cost

^{2.) 2012} Electric Cost based on FY 2011-2012 average cost

Diary

2005-2006

- Calhoun Middle School Added 15, 150 square feet in January 2006.
- McNair Elementary School Added DDC Temperature controls and replaced chiller.
- Hodge Elementary School Added DDC Temperature controls and replaced chiller.

2006-2007

- Ryan HS Added 10,000 square feet of classroom space.
 - o Includes 5 PRTU E/G.
- New sites opened this year:
 - Savannah ES
 - o Navo MS
 - Advanced Technical Center
- Three utility accounts were closed in the second quarter:
 - o Rayzor ES Denton Municipal Utilities Acct #4240617-00
 - Served a ball field that is no longer in use.
 - o Guyer HS Denton Municipal Utilities Acct #5570526-02
 - Only billed solid waste. Solid waste now billed on Acct #4290608-01 with rest of utilities.
 - o Savannah ES IESI Acct #004036438
 - 30 yard roll off container no longer on campus.
- Six utility accounts were opened in the fourth quarter:
 - o Paloma Creek ES:
 - CoServ Acct #0000276200 Electricity and Natural Gas
 - IESI Acct #004040591 Refuse
 - Mustang Acct #010420 000 Water
 - Mustang Acct #010421 000 Water
 - Mustang Acct #010422 000 Water
 - Mustang Acct #010423 000 Water

2007-2008

- Summer School was held at the following schools in 2007:
 - Strickland JH
 - Borman ES
 - o Hodge ES
 - o Lee ES
 - o Davis School
- 3 utility accounts were opened in the first quarter:
 - LA Nelson ES:
 - Denton Municipal Utilities Acct #4350025-01 Electricity, Water, and Refuse
 - Denton Municipal Utilities Acct #5580203-00 Refuse
 - Atmos Energy Acct #80-000201127-1750192-0 Gas
- 2 utility accounts were closed in the second quarter:
 - Strickland MS
 - Denton Municipal Utilities Acct #4240619-00 Electricity
 - o WS Ryan ES
 - Denton Municipal Utilities Acct #5580109-00 Refuse
- The unoccupied section of Fred Moore High School has been occupied by Special Education.
- Hawk Elementary School a lighting control panel was commissioned in July 2007.
- 2 utility accounts were closed in the fourth quarter:
 - o Hodge ES:
 - Denton Municipal Utilities Acct #4240633-00 Electricity
 - o WS Ryan ES:
 - Denton Municipal Utilities Acct #5560938-00 Refuse
- 1 utility account was changed during the fourth quarter:
 - o Lee ES
 - Denton Municipal Utilities Acct #4100967-01 Electric Service Retired
- 2 electric accounts were switched from TXU to Direct Energy in the fourth quarter:
 - o Crownover MS:

- Closed: TXU Energy Acct #893-3178-98-3 Electricity
- Opened: Direct Energy Acct #995882921987-RCMS Electricity
- o Hawk ES:
 - Closed: TXU Energy Acct #972-1384-98-1 Electricity
 - Opened: Direct Energy Acct #995882921978-Hawk Electricity

2008-2009

- 20 utility accounts were opened in the first quarter:
 - o Blanton ES
 - CoServ Acct #0000312515 Electricity, Gas
 - Denton County FWSD#7 Acct #417 Water
 - Denton County FWSD#7 Acct #421 Water
 - Denton County FWSD#7 Acct #428 Water
 - Denton County FWSD#7 Acct #429 Water
 - Denton Municipal Utilities Acct #5580385-00 Refuse
 - Harpool MS
 - CoServe Acct #0000314585 Electricity, Gas
 - Denton County FWSD#7 Acct #422 Water
 - Denton County FWSD#7 Acct #423 Water
 - Denton County FWSD#7 Acct #430 Water
 - Denton County FWSD#7 Acct #431 Water
 - Denton Municipal Utilities Acct #5580387-00 Refuse
 - o Olive Stephens ES
 - Lake Cities Municipal Utility Authority Acct #4747-00 Water
 - Lake Cities Municipal Utility Authority Acct #4791-00 Water
 - Lake Cities Municipal Utility Authority Acct #4792-00 Water
 - Lake Cities Municipal Utility Authority Acct #4793-00 Water
 - Lake Cities Municipal Utility Authority Acct #4794-00 Water
 - Denton Municipal Utilities Acct #5580388-00 Refuse
 - Atmos Acct #80-000201127-1797665-2 Gas
 - TXU Energy Acct #801-7228-98-5 Electricity

Mechanical and Control Work completed April through October 2008:

- DDC controls were installed on all portable classrooms
- Calhoun Middle School
 - Replace built-up chilled and hot water VAV system serving the Jones / McAllister building with new package rooftop units.

Denton ISD

Utilities Cost and Usage Report (Fiscal Year July 2011 - June 2012)

- o Replaced (4) Roof-top package units on the east side of the main building.
- Replaced (8) Roof-top package units on the west side of the main building.
- o Replaced (13) Roof-top package units on the East building.
- o Replaced the heating boiler in the Main Building.
- Replaced the domestic hot water heating system in the Jones / McAllister building.

Central Services

- o Replaced all (14) new split systems.
- Converted the controls for R-lead to DDC

Clear Creek

- o Replace eight (8) new rooftop units and added one (1) additional unit.
- o Converted the controls for R-lead to DDC

Denton High School

- Replaced (36) Roof-top package units serving the spaces which have been historically called the vocational education area, excluding the cosmetology area.
- Replaced (1) Roof-top package unit to replace serving the main office area.
- o Replaced the air handlers serving the main space of the auditorium.
- o Replaced the domestic hot water heating system serving the kitchen.
- o Replaced pneumatic controls on all fan-powered VAV boxes with DDC.

Fred Moore High School

- o Replaced eleven (11) rooftop units.
- o Replaced thirteen (13) split heating and cooling units.
- o Converted the controls for R-lead to DDC

Rivera Elementary School

- o Replaced four (4) rooftop units.
- Replaced all fan powered VAV boxes and pneumatic controls with new boxes having DDC controls.

Ryan High School

- o Replaced the cooling tower.
- o Replaced the domestic hot water heating system.

Strickland Middle School

- Replaced the air handling units serving the library and west classroom addition.
- o Replaced the domestic hot water heating system.
- o Replaced RTU #21 with a new RTU unit.

Lighting Efficiency Retrofit completed June through August 2008:

- Denton High School Entire Campus was refit with all T8 lamps and electronic ballasts
- Ryan High School Entire Campus was refit with all T8 lamps and electronic ballasts
- Elementary Schools Gyms: Replaced HID fixtures with linear fluorescent T8 high bay fixtures.
 - o Borman Elementary School
 - o EP Rayzor Elementary School
 - o Evers Park Elementary School
 - o Ginnings Elementary School
 - Hawk Elementary School
 - Houston Elementary School
 - Lee Elementary School
 - Newton Rayzor Elementary School
 - o Pecan Creek Elementary School
 - o Providence Elementary School
 - o Rivera Elementary School
 - o Savannah Elementary School
 - Wilson Elementary School
 - o WS Ryan Elementary School
- 1 electric account was switched from TXU to Direct Energy in the second quarter:
 - Olive Stephens MS:
 - Closed: TXU Energy Acct #801-7228-98-5 Electricity
 - Opened: Direct Energy Acct #995882925531 Electricity
- The Energy Cost Adjustment (ECA) was reduced in February from \$0.050 to \$0.042 per kWh.
- Lake Cities Municipal Authority increased their minimum bill from \$25.63 to \$34.26 as of June 15, 2009.
- Irrigation Line found broken and fixed at McNair ES on August 9, 2009.
- Internal bill audits found overbilling at Advanced Technology Center. Credit of \$6,400.43 was applied.
- Job office for new Pre-K center added to Advanced Technology meter as of June 17, 2009.

- Summer School was held at the following schools in 2008:
 - Strickland JH
 - o Guyer HS
 - o Ginnings ES
 - o Lee ES
 - Newton Rayzor ES

2009-2010

Mechanical and Control Work completed in 2009:

Borman

- Controls for (4) RTU with CO2, temperature and humidity control.
- Controls for (3) Cooling only RTU's
- Controls for (7) Exhaust Fans.

Calhoun

- Controls for (2) RTU's with CO2, temperature and humidity control.
- Controls for (1) VAV/RTU with all associated points per specs.
- Controls for (2) DX Split systems.
- Controls for (29) Fan Powered VAV boxes.
- Controls for (11) Exhaust Fans.
- Controls for (6) Emergency Exhaust Fans.

DHS

- Controls for (32) RTU's with Combination sensors.
- Controls for (1) VAV/RTU with all associated points per specs.
- Controls for (6) DX Split systems.
- Controls for (12) Fan Powered VAV boxes.
- Controls for (52) Exhaust Fans.

Hodge

- Controls for (12) RTU with CO2, temperature and humidity control.
- Controls for (1) DX Split systems.
- Controls for (7) Fan Powered VAV boxes.
- Controls for (3) VAV boxes.
- Controls for (7) Exhaust Fans.

McNair

- Controls for (12) RTU with CO2, temperature and humidity control.
- Controls for (1) DX Split systems.
- Controls for (7) Fan Powered VAV boxes.

- Controls for (3) VAV boxes.
- Controls for (7) Exhaust Fans.

Rayzor

- Controls for (11) RTU with CO2, temperature and humidity control.
- Controls for (3) Cooling only RTU's
- Controls for (7) Exhaust Fans.

RHS

- Controls for (7) RTU's with CO2 and temperature control.
- Controls for (10) RTU's without CO2 control.
- Controls for (2) VAV/RTU with all associated points per specs.
- Controls for (3) DX Split systems.
- Controls for (33) Fan Powered VAV boxes.
- Controls for (15) Exhaust Fans. The rest of them are wired by Div 16 to a wall switch
- or hood switch
- Controls for (3) Emergency Exhaust Fans.

Rivera

- Controls for (9) RTU with CO2, temperature and humidity control.
- Controls for (2) DX Split systems.
- Controls for (7) Fan Powered VAV boxes.
- Controls for (8) Exhaust Fans.
- Summer School is planned to be as held at the following schools in 2010:
 - Strickland JH
 - o Denton HS
 - o Ginnings ES
 - o Lee ES
 - Fred Moore HS

2010-2011

Mechanical and Control Work completed in 2010:

HVAC Controls Upgrade

- Denton High School
- Guyer High School

Intelligent Irrigation Control

• Guyer High School

Lighting Retrofit and/or Occupancy Sensors and/or Hawkeye Fixtures

- Ann Windle
- Borman
- Calhoun
- Crownover
- EP Rayzor
- Evers Park
- Fred Moore
- Ginnings
- Hodge
- McMath
- McNair
- Navo
- Pecan Creek
- Rayzor
- Rivera
- Ryan Elementary
- Service Center
- Strickland
- Wilson

SF Added Total 187,695:

- Borman 328 SF
- Calhoun 22,651 SF
- Denton HS 32,807 SF
- Hodge 16,175 SF
- McNair 16,175 SF
- Rayzor 8,600 SF
- Rivera 11,890 SF
- Ryan HS 79,069 SF

Other Activities

- Submitted for SECO grant for Strickland Middle School
- Submitted for SECO Cool Schools grant for boiler and chiller replacements at McNair ES, McMath MS, Hodge ES, Guyer HS and Ryan HS

2011-2012

- Found water leak at Borman Elementary School
- Found billing error on W.S. Ryan electricity
- Found water leak at Navo Middle School
- Due to the continued increase in cost and usage of irrigation, TDIndustries hired a summer intern from UNT to assist in dissecting all the water accounts to separate the irrigation use and to set-up an ongoing accounting of irrigation as a separate utility in UPM. In doing this found the following:
 - Ryan HS billing for wastewater on irrigation account resulted in a credit of \$2,517.
 - Lee Elementary billing for wastewater on irrigation resulted in a credit of \$21,763.
- Updated Facilities Rental Rate Table
- Began working with DME on a potential demand response program
- Began working with DME on a solar PV pilot project