



DENTON
INDEPENDENT
SCHOOL DISTRICT



SEMI-ANNUAL UTILITY REPORT - JULY TO DEC. 2019

Paul Andress – Executive Director of Operations – DISD

Angela Alfonso – Utility Specialist – DISD

Arnoldo Villarreal – Project Manager – TD

Orland Hilliard, CEM – Account Manger – TD

Bob Wilken, CEM – Executive Account Manager – TD

Brandon Hoke – Engineering - TD

Utility Performance Trends



* Estimated

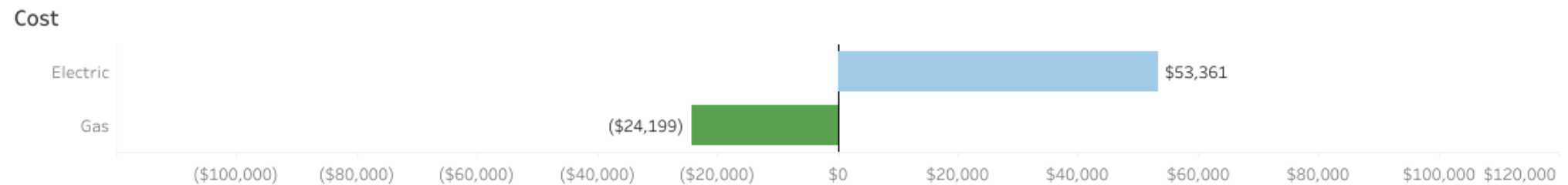
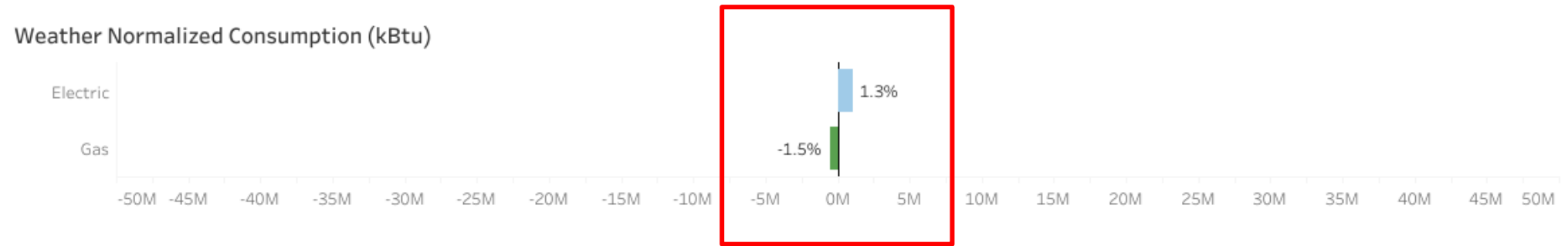
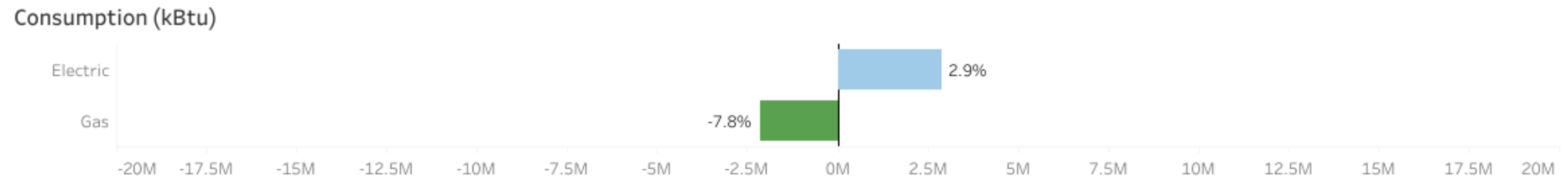
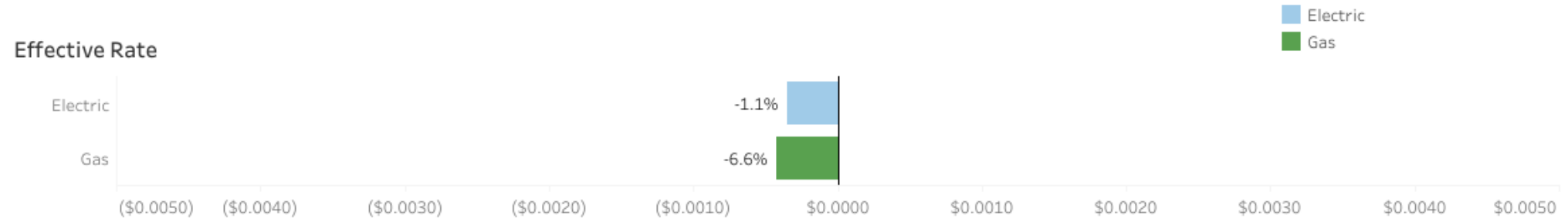


Comparison by Utility

6-month period actuals

	July 2018 - December 2018	July 2019 - December 2019		% Change	Cost Change (\$)
Electric	\$3,007,051	\$3,060,412		2%	\$53,361
Gas	\$173,643	\$149,444		-14%	(\$24,199)
Irrigation Water	\$350,244	\$356,027		2%	\$5,783
Potable, Sewer & Storm Water	\$427,248	\$440,676		3%	\$13,429
Refuse	\$406,811	\$430,584		6%	\$23,773
Total	\$4,364,997	\$4,437,143		1.65%	\$72,146

All Schools Energy Performance Change Compared To Last Year



Water and Refuse Performance Change Compared To Last Year

- Irrigation Water
- Potable, Sewer & Storm
- Rainfall
- Refuse

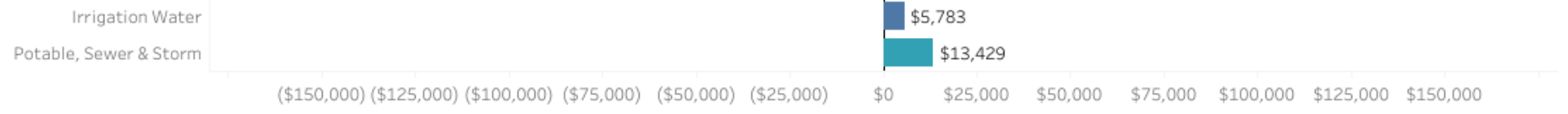
Effective Rate



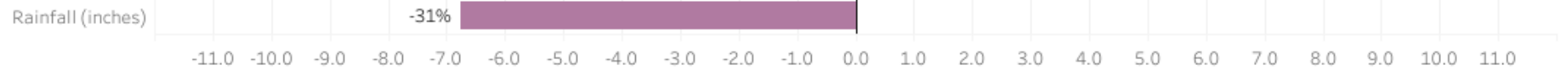
Consumption



Cost



Rainfall

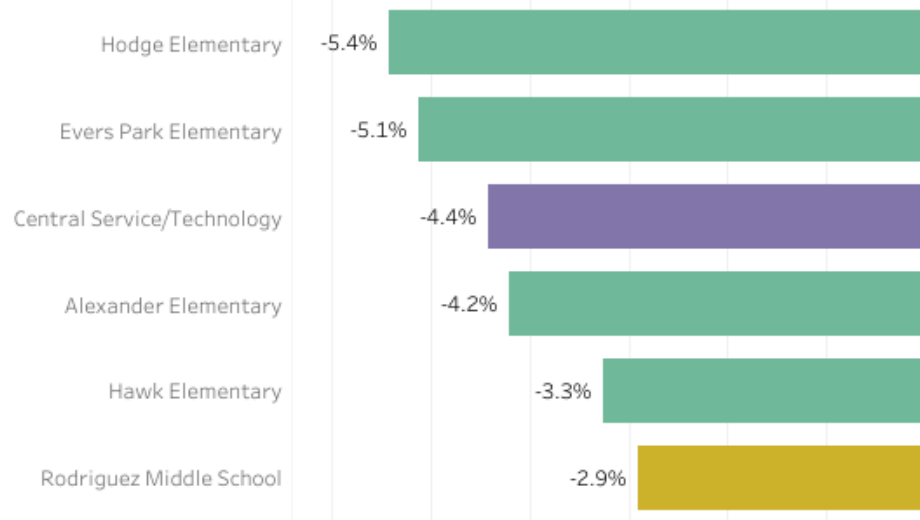


Refuse

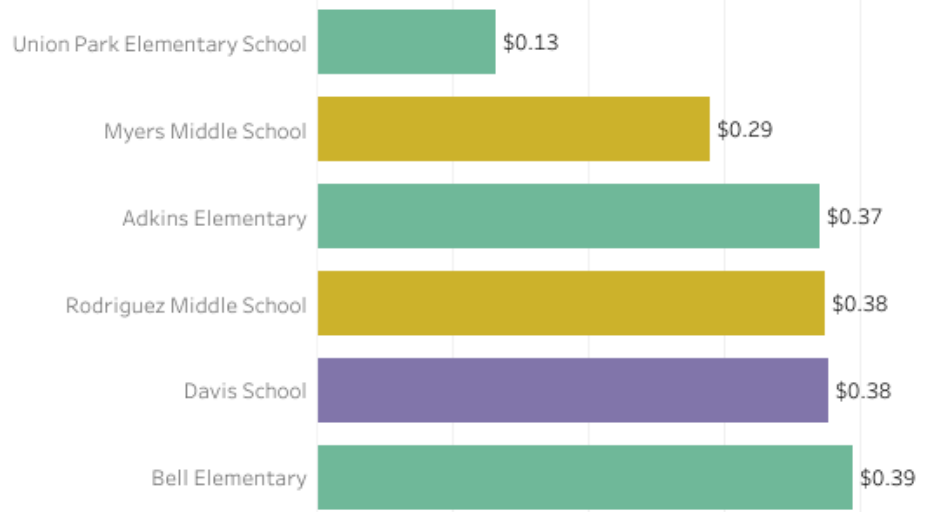


Electric - Top Performers

Largest % Decrease in Usage



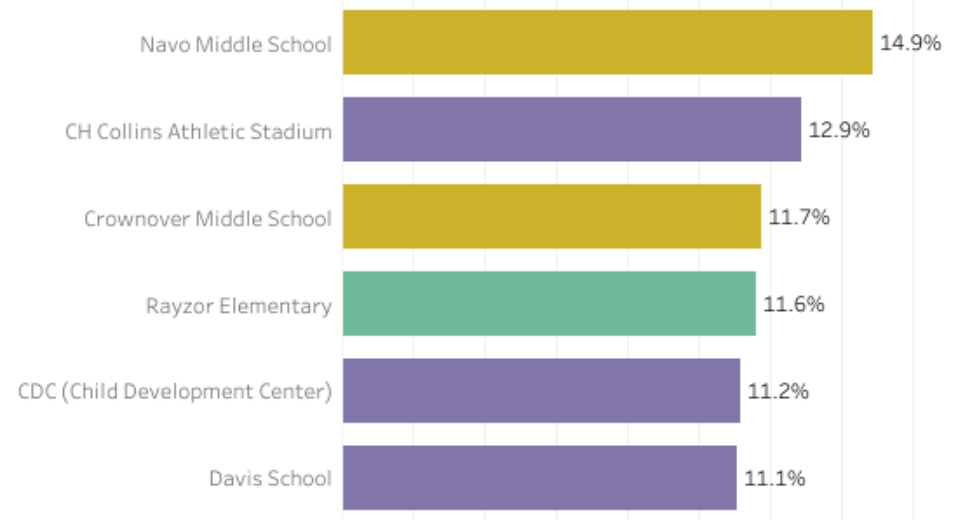
Lowest Cost per SqFt



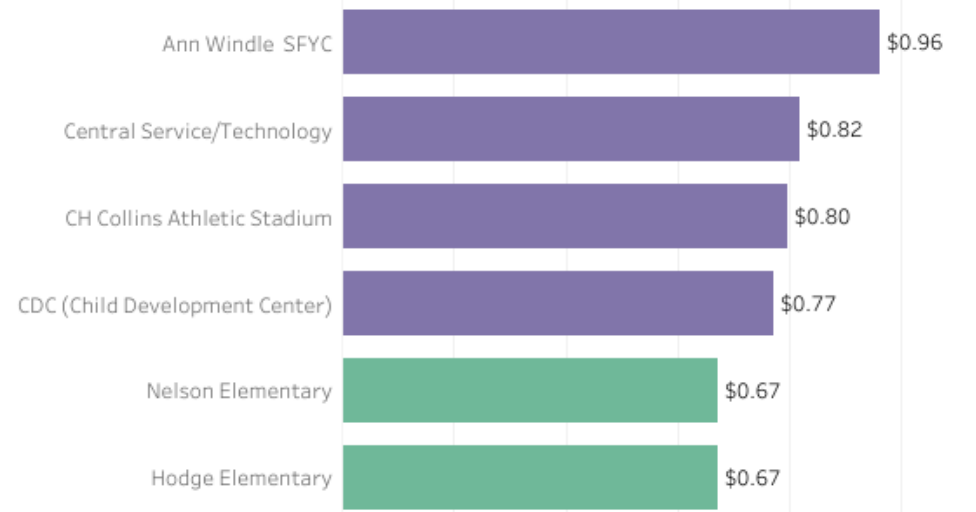
Opportunities

- Auxiliary ■
- Elementary Schools ■
- Middle Schools ■
- High Schools ■

Highest % Increase in Usage

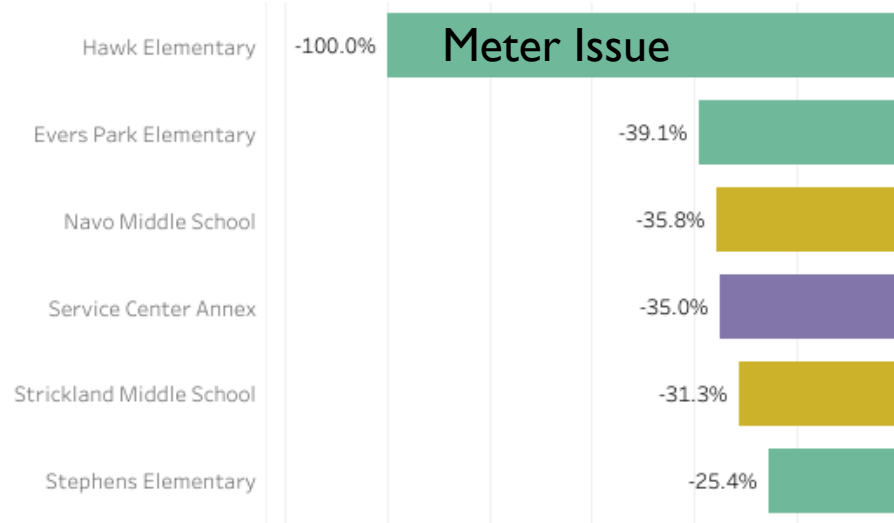


Highest Cost per SqFt



Gas - Top Performers

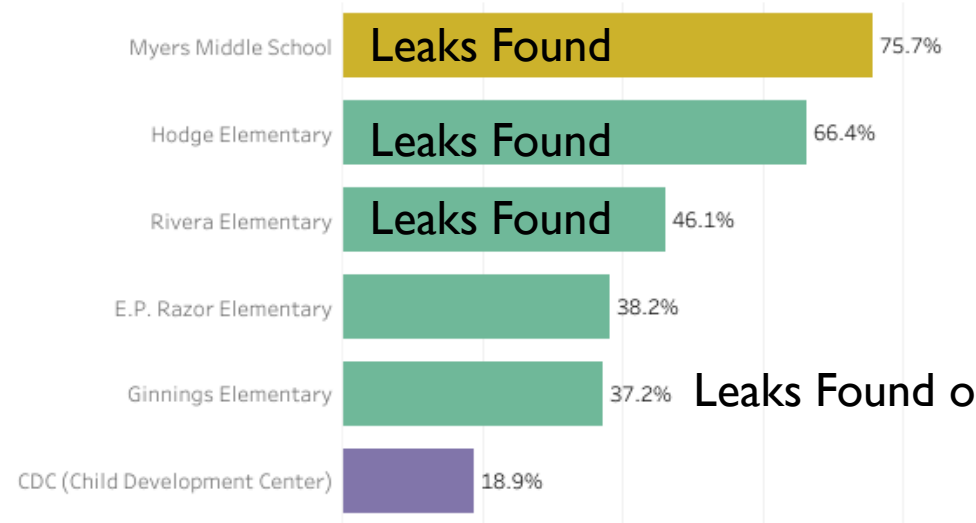
Largest % Decrease in Usage



Opportunities

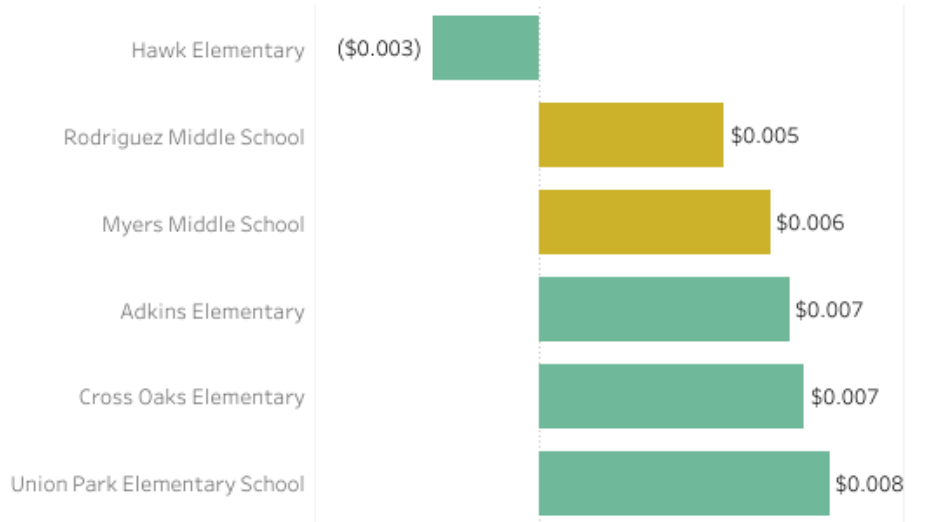
- Auxiliary
- Elementary Schools
- Middle Schools
- High Schools

Highest % Increase in Usage

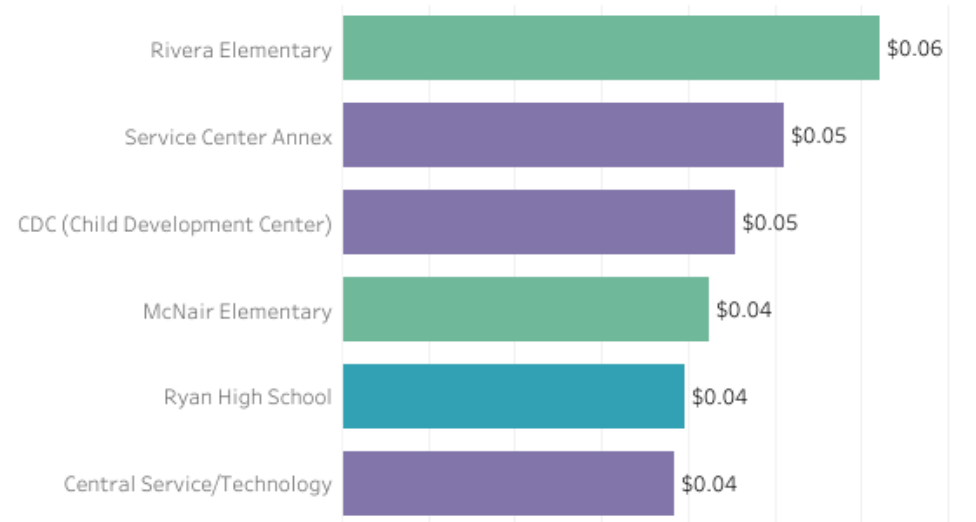


Leaks Found on City Meter

Lowest Cost per SqFt

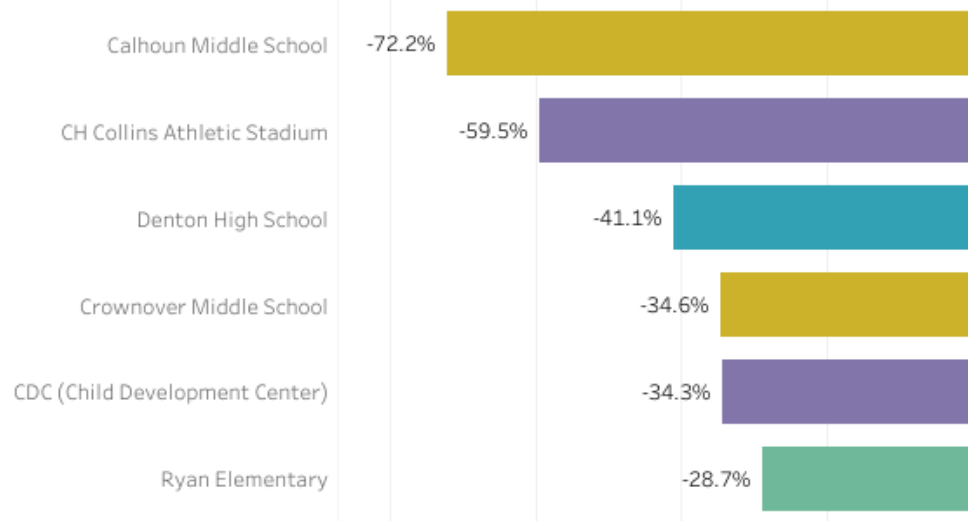


Highest Cost per SqFt



Potable Water - Top Performers

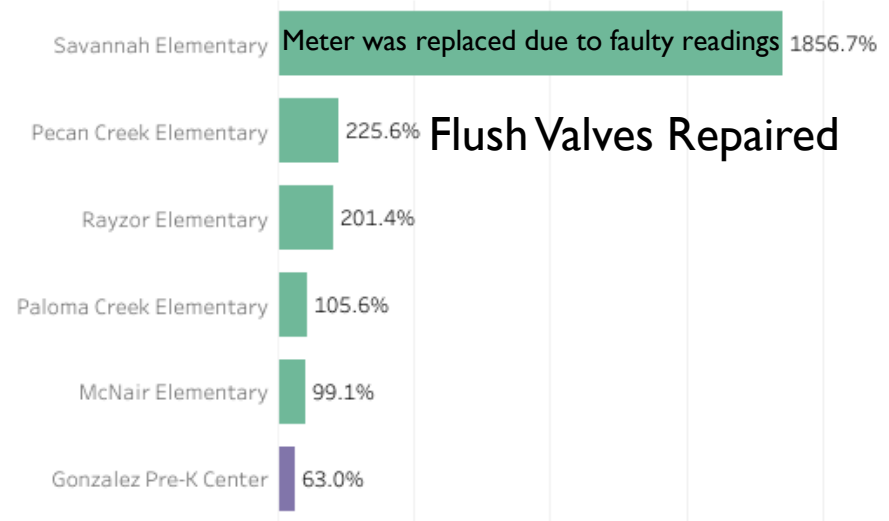
Largest % Decrease in Usage



Opportunities

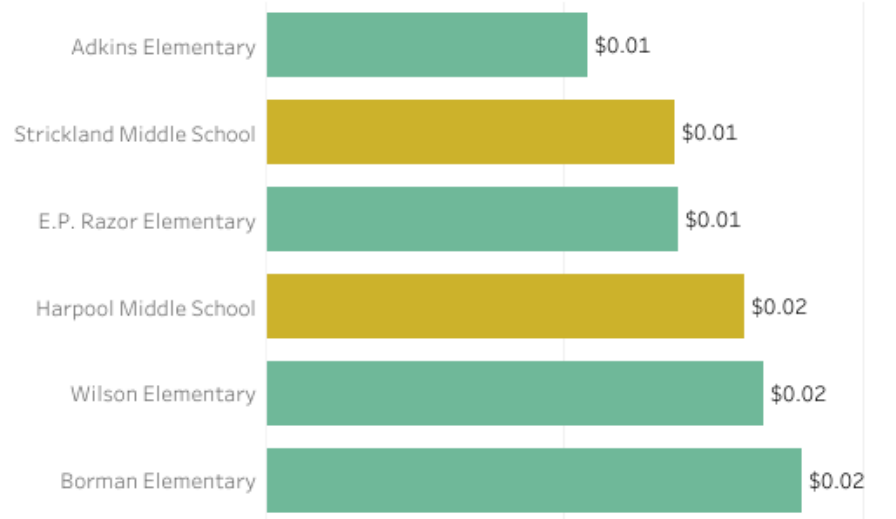
- Auxiliary ■
- Elementary Schools ■
- Middle Schools ■
- High Schools ■

Highest % Increase in Usage

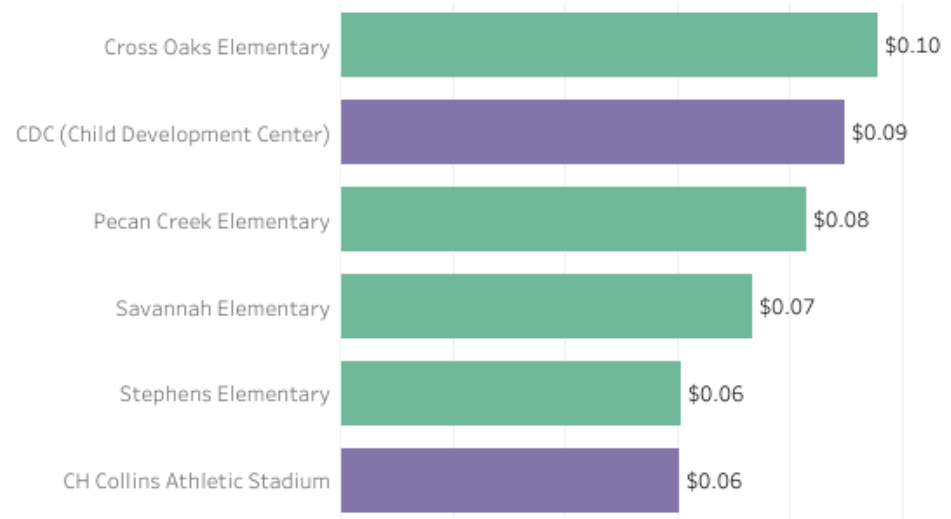


Flush Valves Repaired

Lowest Cost per SqFt

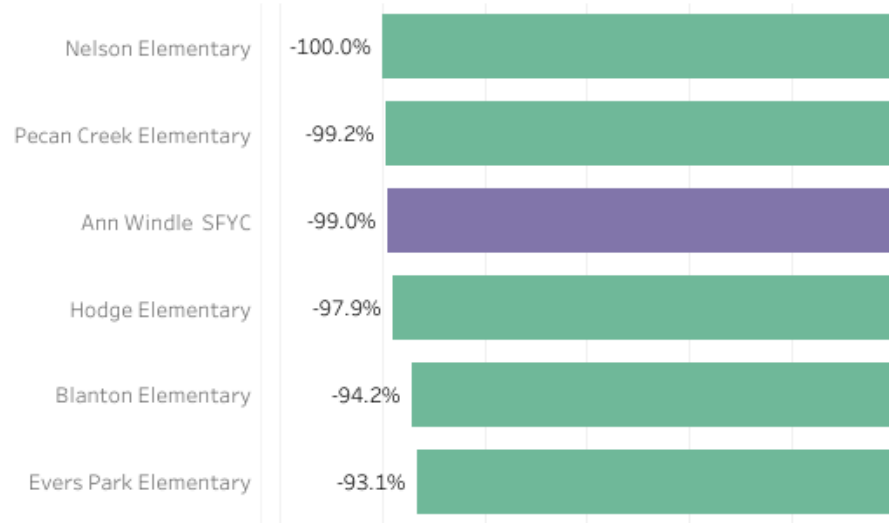


Highest Cost per SqFt

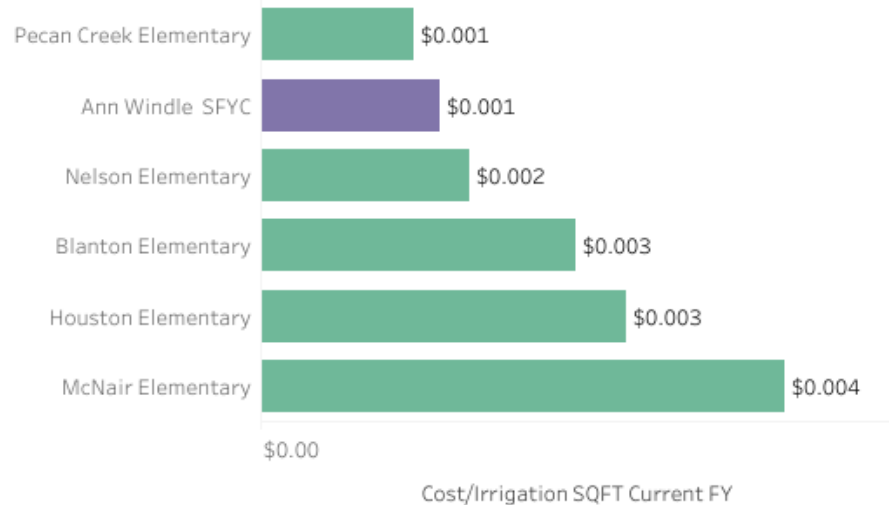


Irrigation Water - Top Performers

Largest % Decrease in Usage



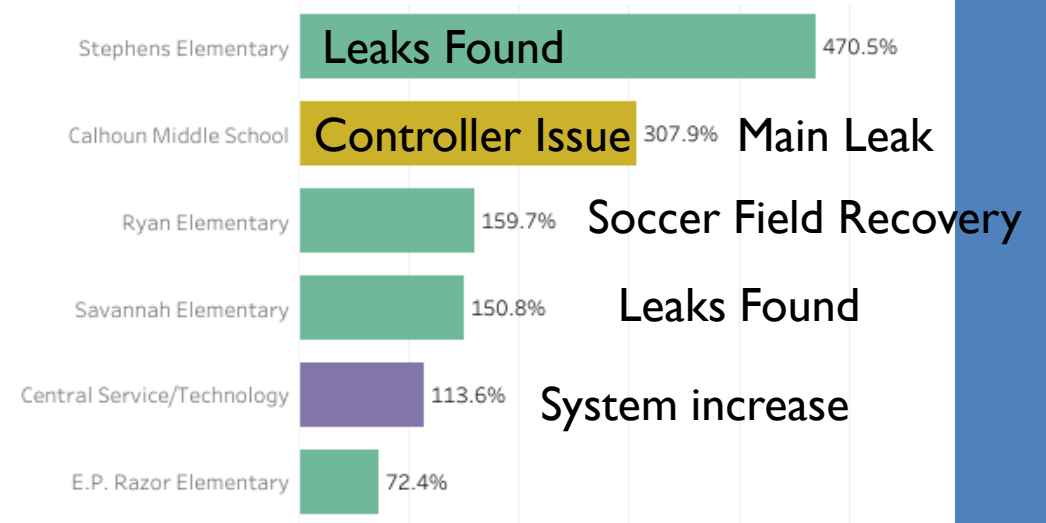
Lowest Cost per SqFt



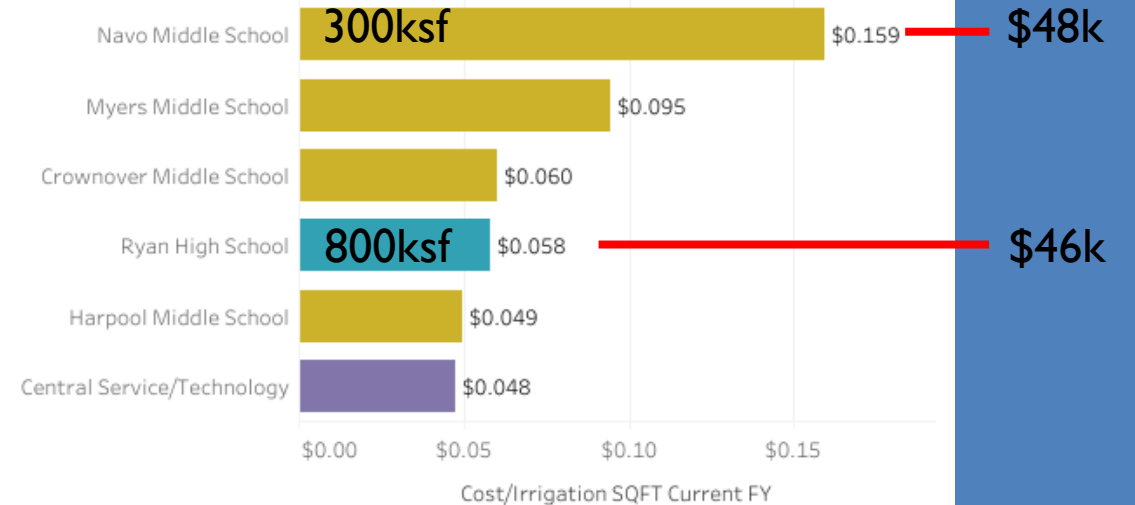
Opportunities

- Auxiliary
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Highest % Increase in Usage



Highest Cost per SqFt



RECENT ACCOMPLISHMENTS - SUMMARY

1. Bi-weekly utility audits have continued to find items as outlined in report.
2. Irrigated land areas have been incorporated into utility database.
3. Nearing the completion of the controls of Ryan High School.

LOOKING AHEAD

1. Incorporating the solar panels at Union Park into reporting.
2. Implementing VRF at Wilson and Strickland. Solar panels on Wilson.
 1. Geothermal not a good option at these sites.
3. Controls system upgrades from INET to TRIDIUM (2018 Bond)
 1. E.P. Rayzor, Ann Windle and Ginnings
4. Evaluating Ryan High School to ensure the new chiller systems are operating at peak and report on the savings. Based on the new controls being operational.
5. Perform a walk through energy audit on Navo Middle School to investigate any potential areas for improvement.