



DENTON
INDEPENDENT
SCHOOL DISTRICT



ANNUAL UTILITY REPORT – JULY 2019 TO JUNE 2020

Paul Andress – Executive Director of Operations – DISD

Angela Alfonso – Utility Specialist – DISD

Arnoldo Villarreal – Project Manager – TD

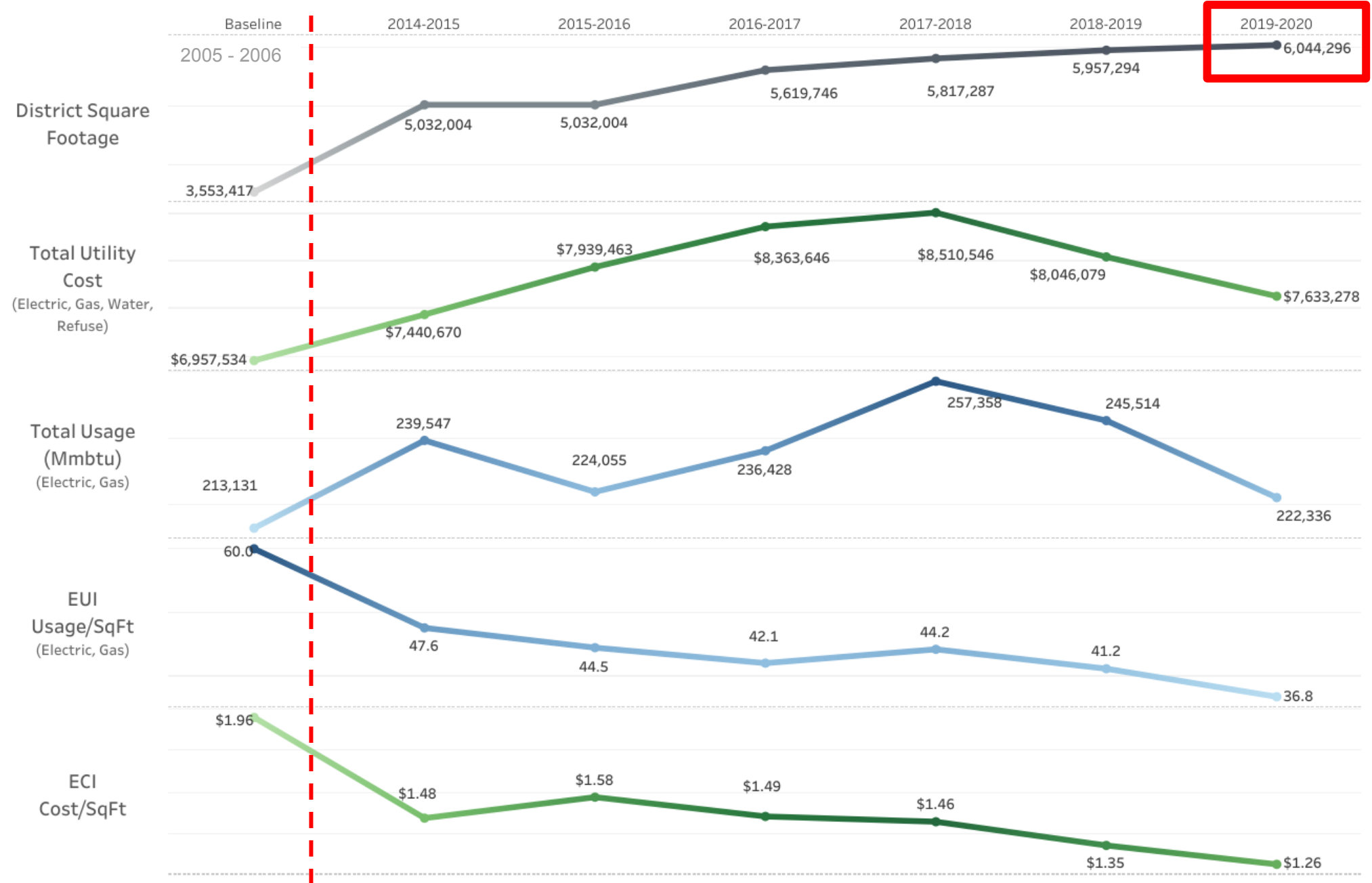
Orland Hilliard, CEM – Account Manger – TD

Bob Wilken, CEM – Emeritus Account Manager – TD

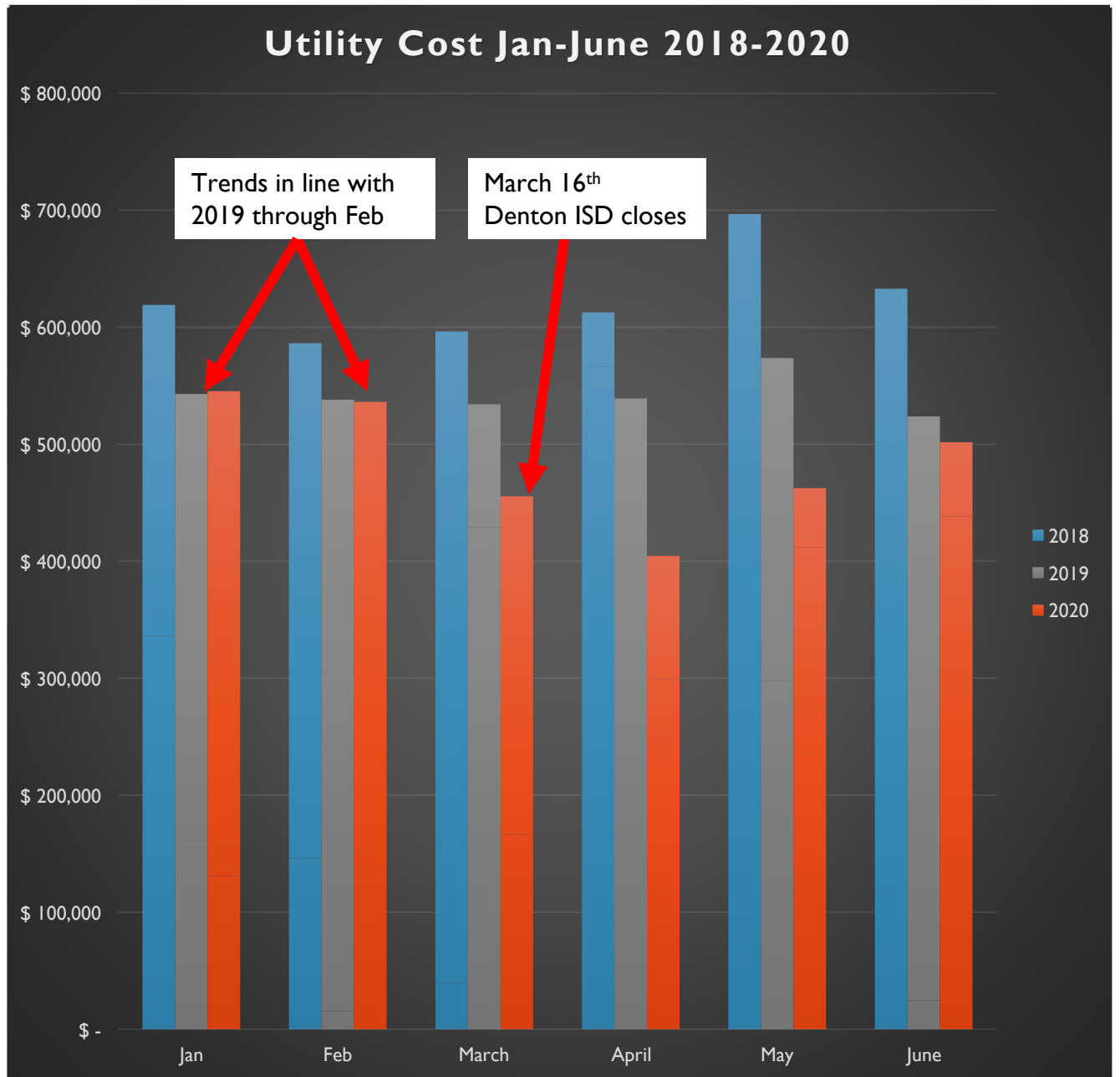
Brian Lillard – Vice President - TD

Brandon Hoke, P.E. – Engineering - TD

Utility Performance Trends



COST IMPACT OF COVID-19

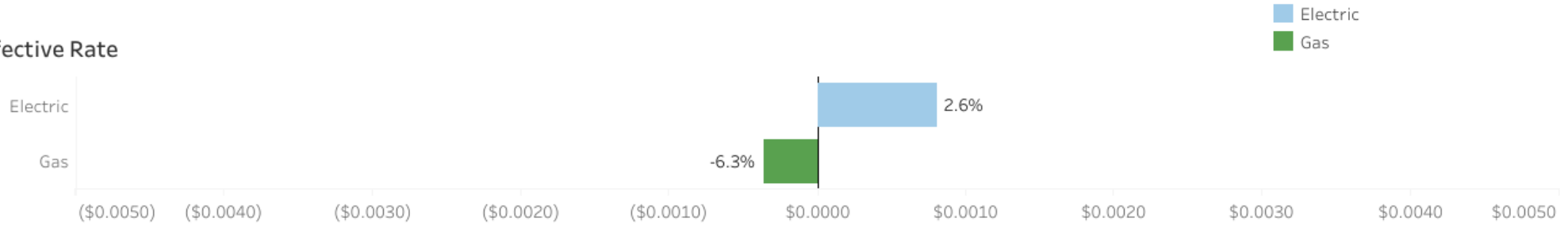


Comparison by Utility

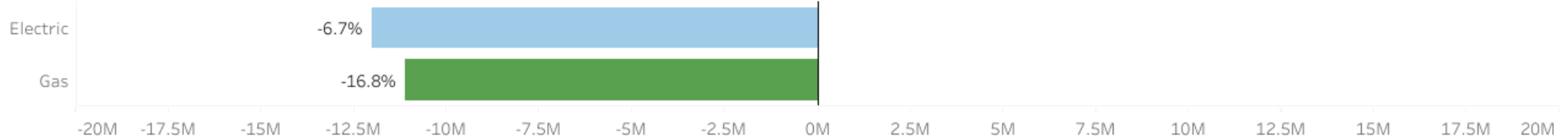
	July 2018 - June 2019	July 2019 - June 2020	% Change	Cost Change (\$)
Electric	\$5,536,548	\$5,300,513	-4%	(\$236,036)
Gas	\$376,491	\$293,445	-22%	(\$83,046)
Irrigation Water	\$488,382	\$504,377	3%	\$15,995
Potable, Sewer & Storm Water	\$808,561	\$814,684	1%	\$6,123
Refuse	\$838,283	\$720,259	-14%	(\$118,024)
Total	\$8,048,266	\$7,633,278	-5.16%	(\$414,988)

All Schools Energy Performance Change Compared To Last Year

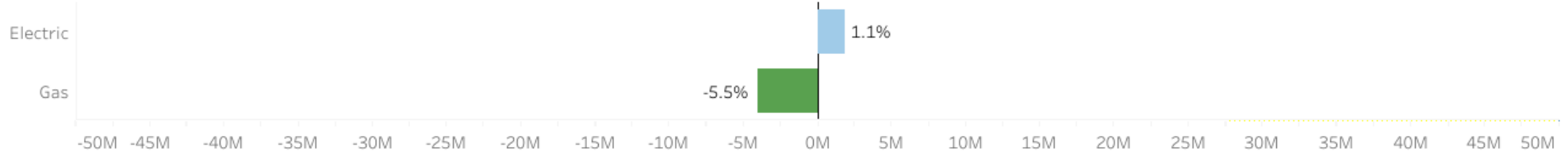
Effective Rate



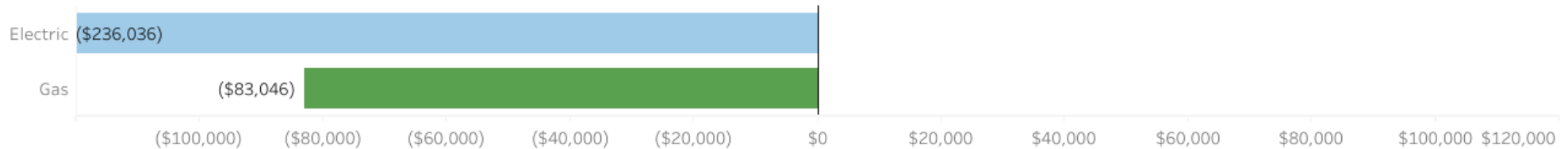
Consumption (kBtu)



Weather Normalized Consumption (kBtu)



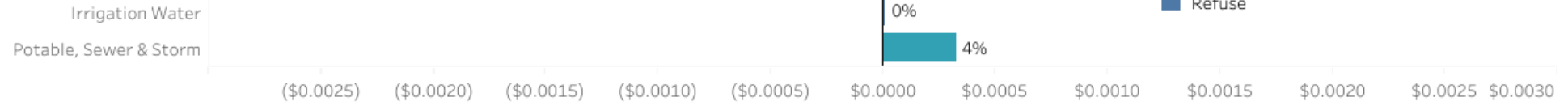
Cost



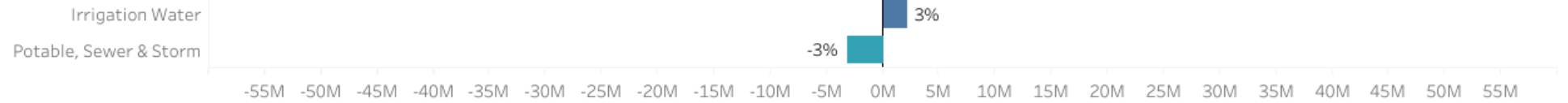
Water and Refuse Performance Change Compared To Last Year

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

Effective Rate



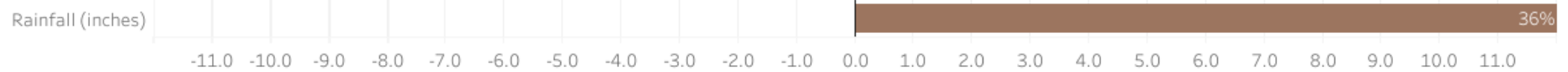
Consumption



Cost



Rainfall

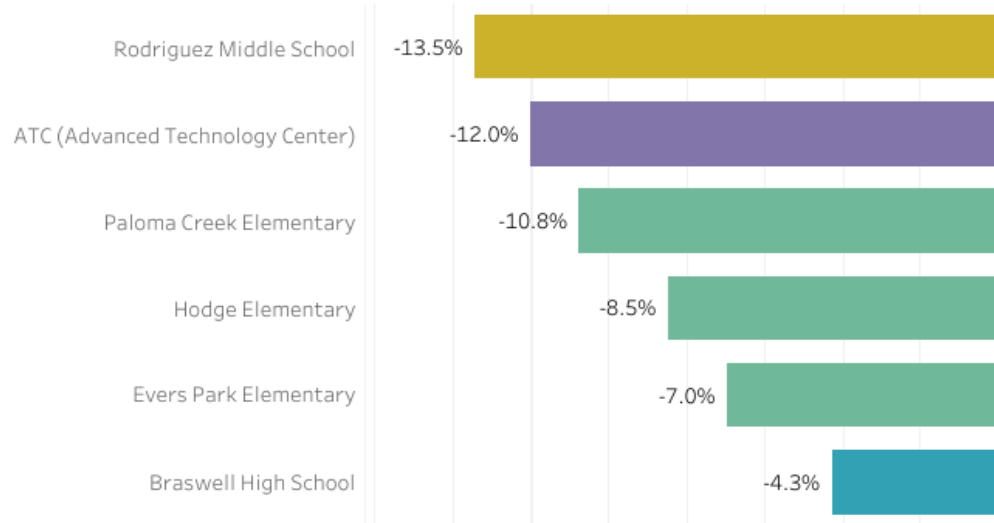


Refuse



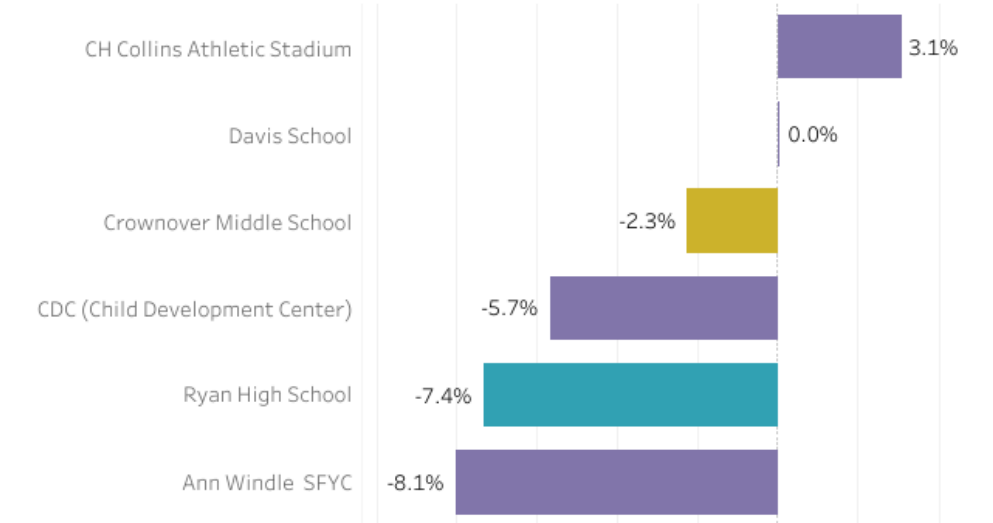
Electric - Top Performers

Largest % Decrease in Usage

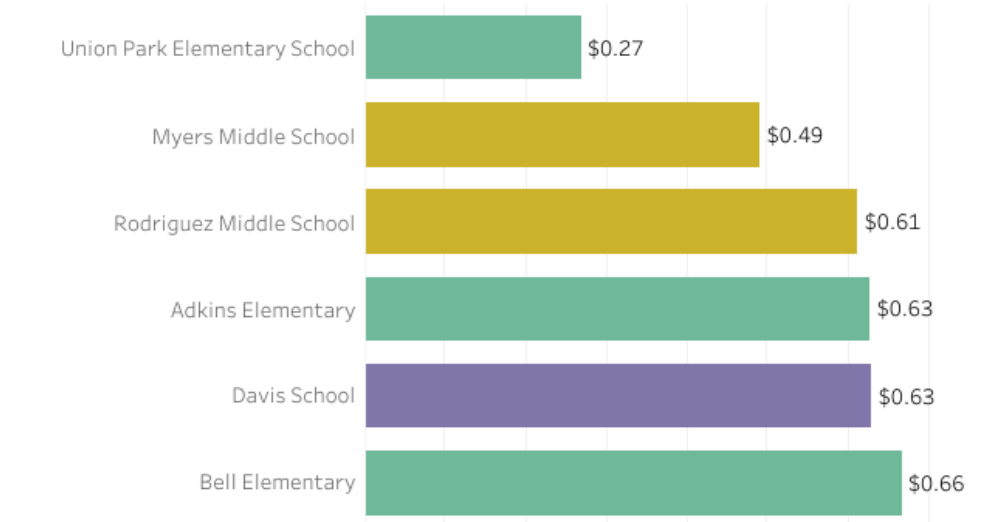


Opportunities

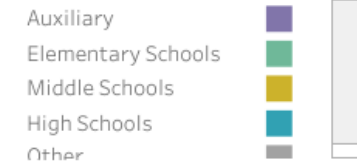
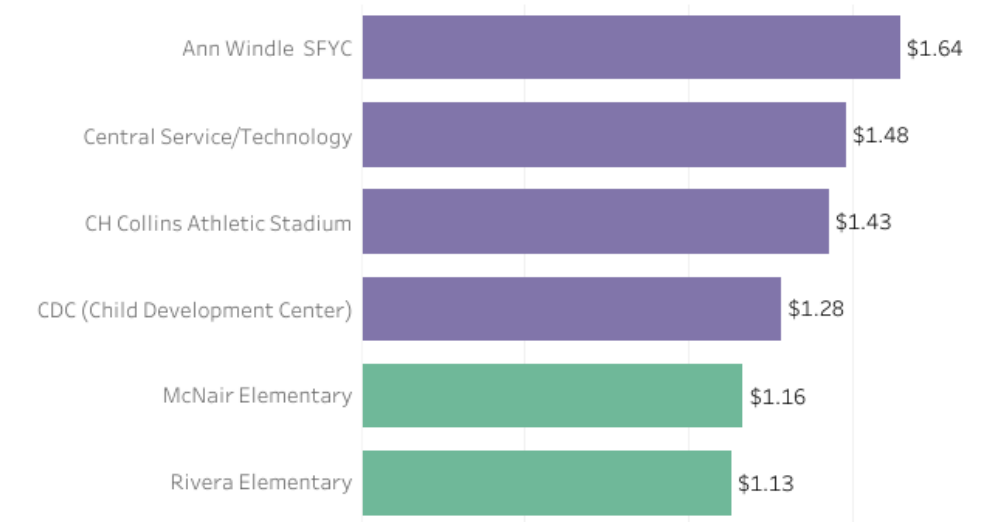
Highest % Increase in Usage



Lowest Cost per SqFt



Highest Cost per SqFt



UNION PARK SOLAR UPDATE

Power Grid



Solar Power



Solar Panels

Union Park Elementary



Coserv Meter



Denton Meter



Denton Meter

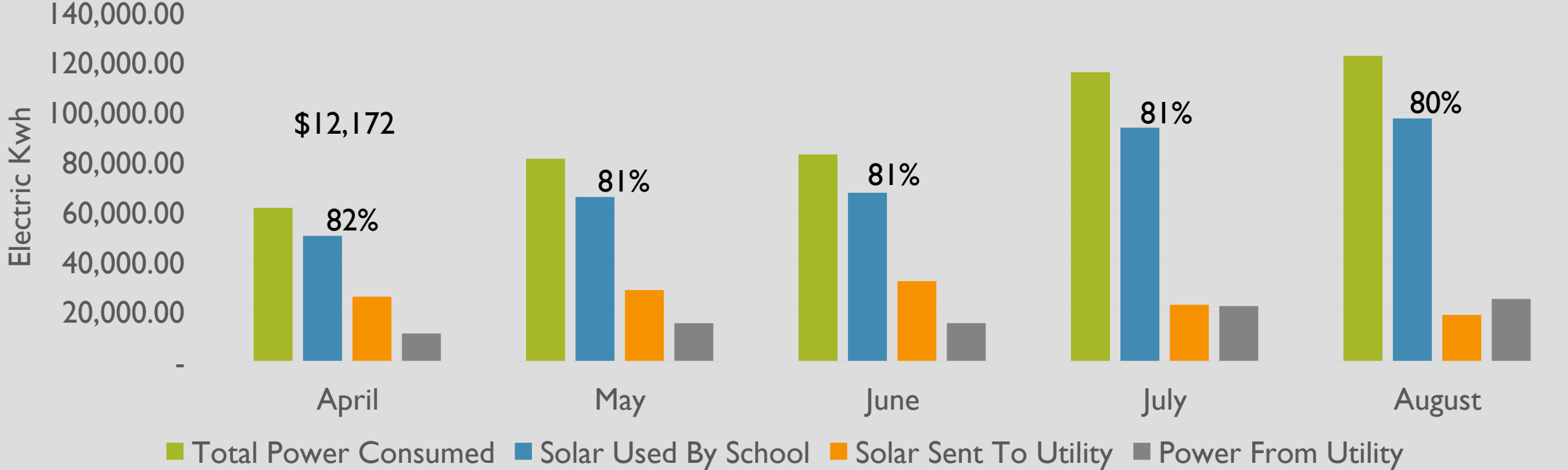


Denton Meter



UNION PARK SOLAR UPDATE

Electricity Usage

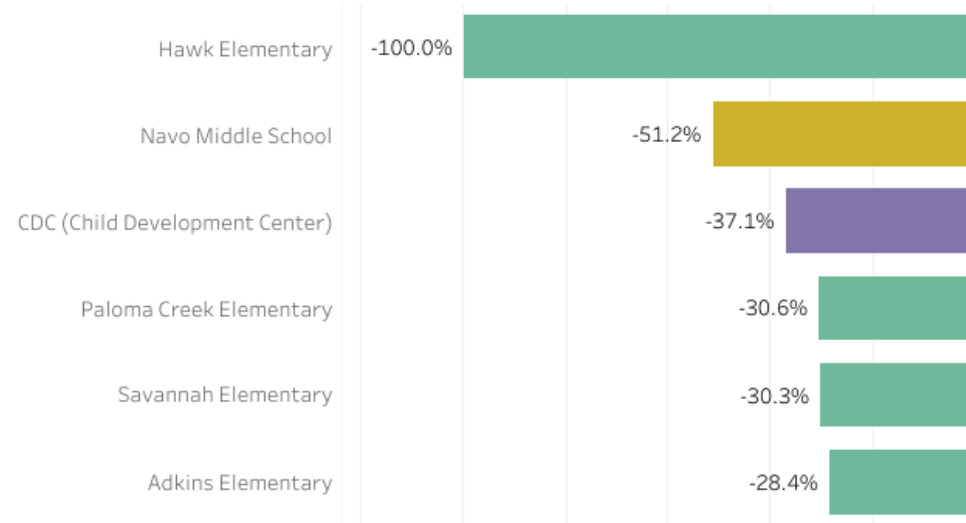


Estimated Savings of Solar Power						
	April	May	June	July	August	Total
Actual Electric Costs	\$1,374.00	\$1,562.00	\$1,626.00	\$2,126.00	\$1,528.00	\$8,216.00
Estimated Savings from Solar*	\$5,576.97	\$7,305.39	\$7,492.51	\$10,384.86	\$10,794.05	\$41,553.79

*Based on effective electric rate of \$0.11/kwh which was Union Park average in FY 2020

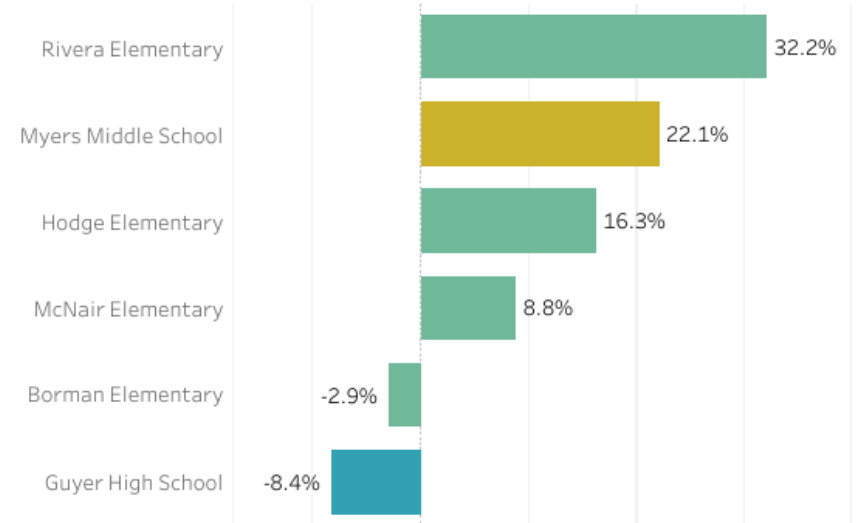
Gas - Top Performers

Largest % Decrease in Usage

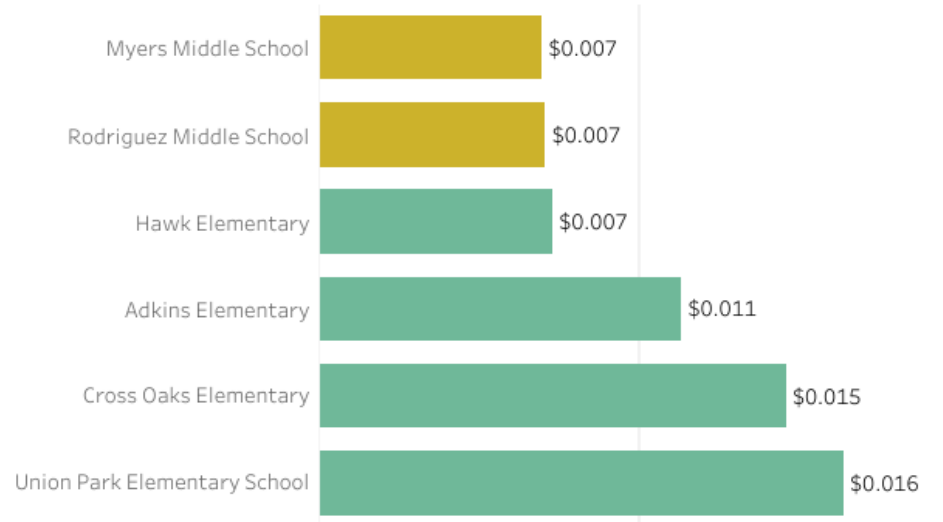


Opportunities

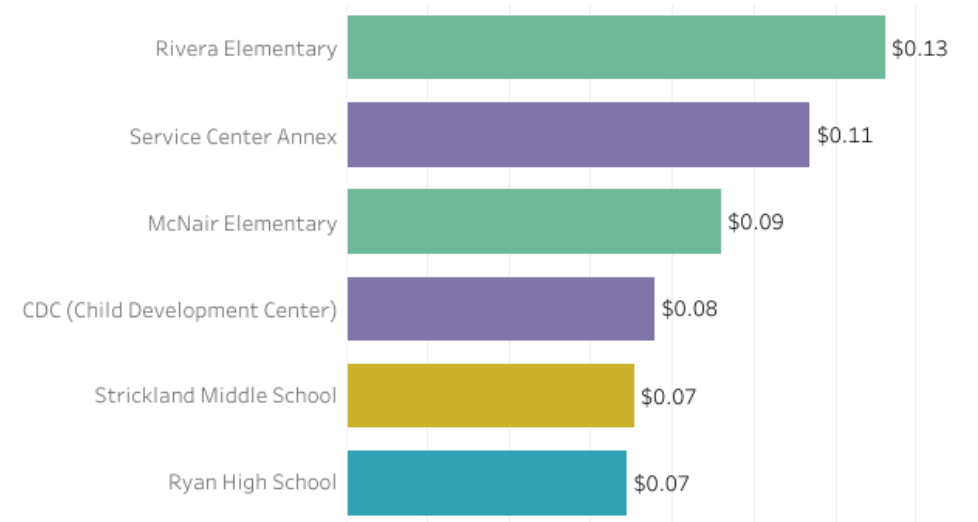
Highest % Increase in Usage



Lowest Cost per SqFt

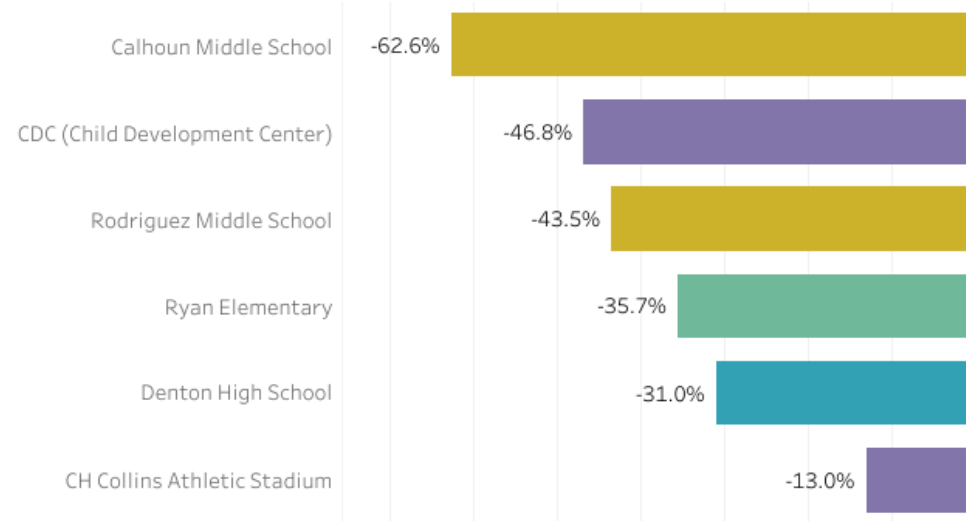


Highest Cost per SqFt

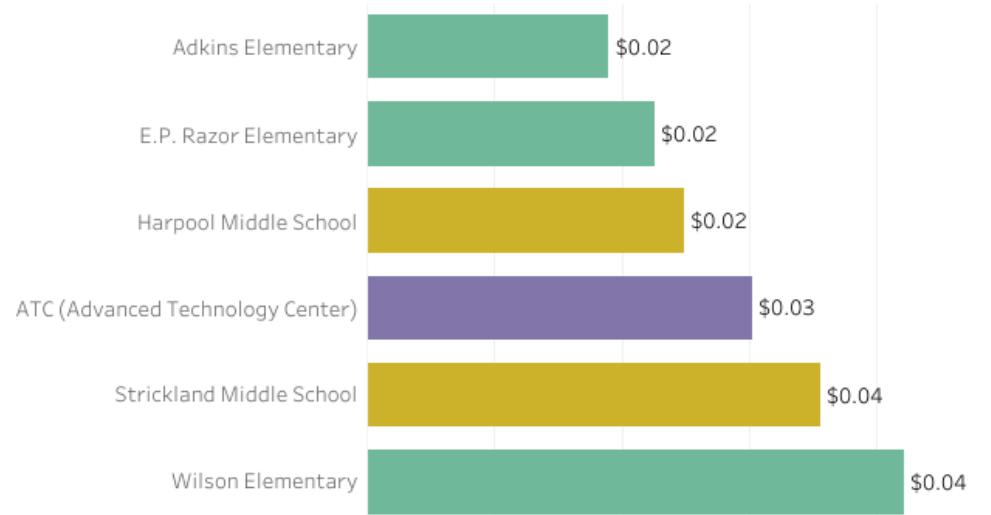


Potable Water - Top Performers

Largest % Decrease in Usage

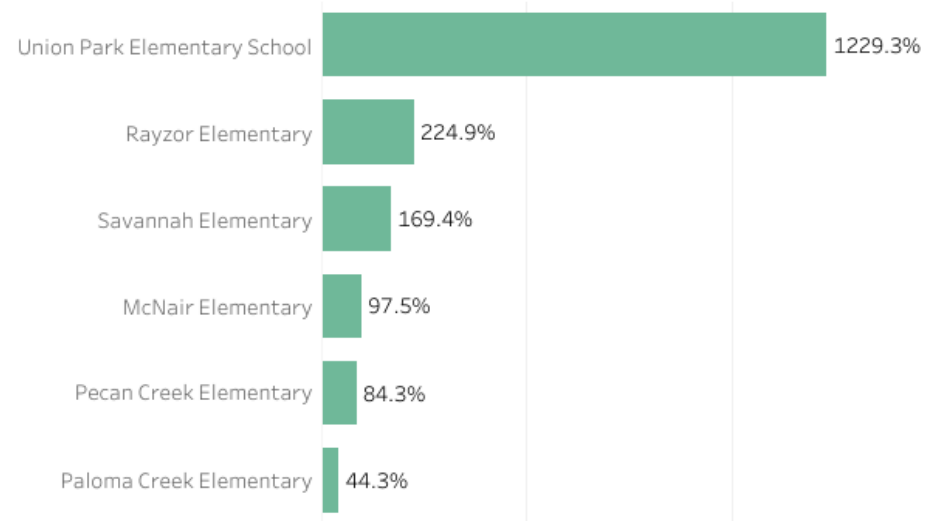


Lowest Cost per SqFt

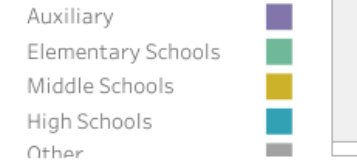
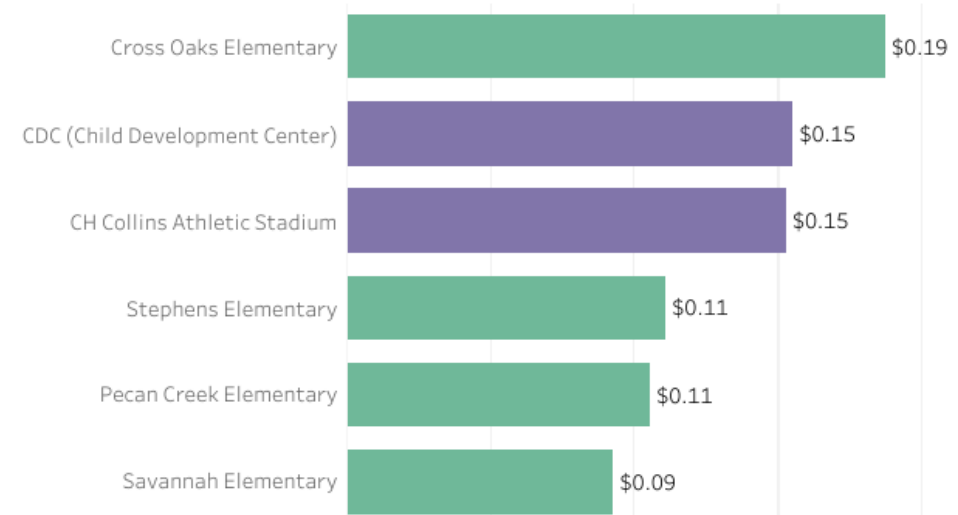


Opportunities

Highest % Increase in Usage

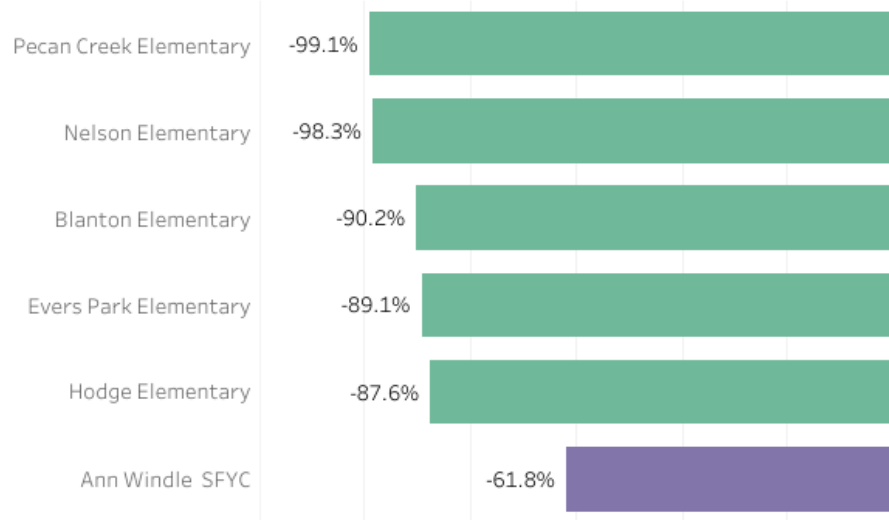


Highest Cost per SqFt



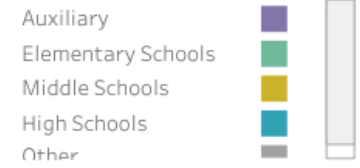
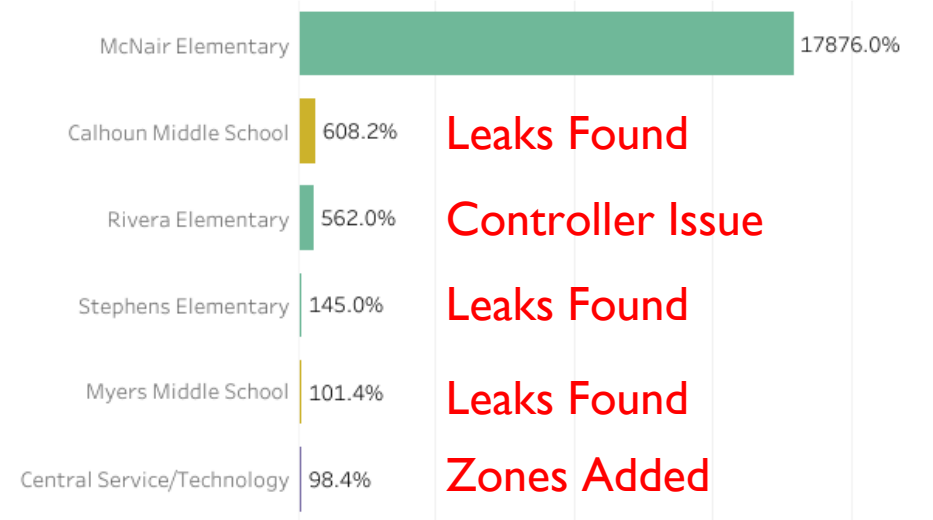
Irrigation Water - Top Performers

Largest % Decrease in Usage

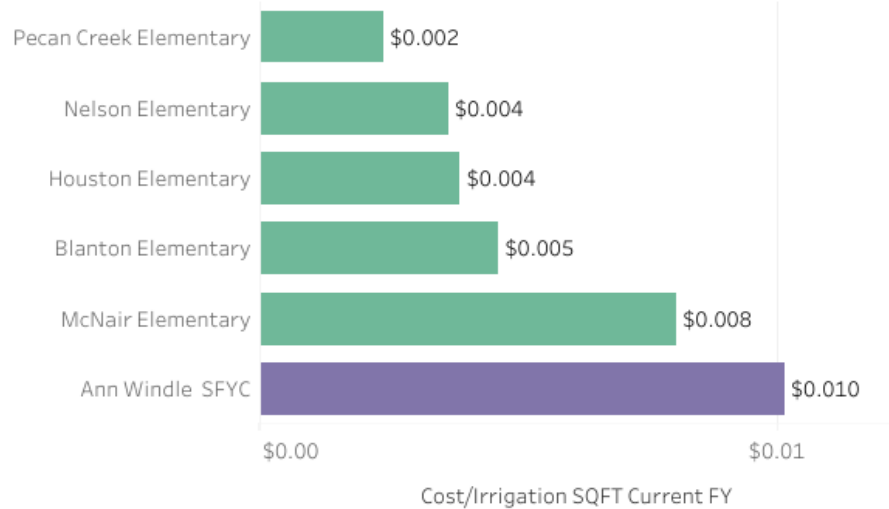


Opportunities

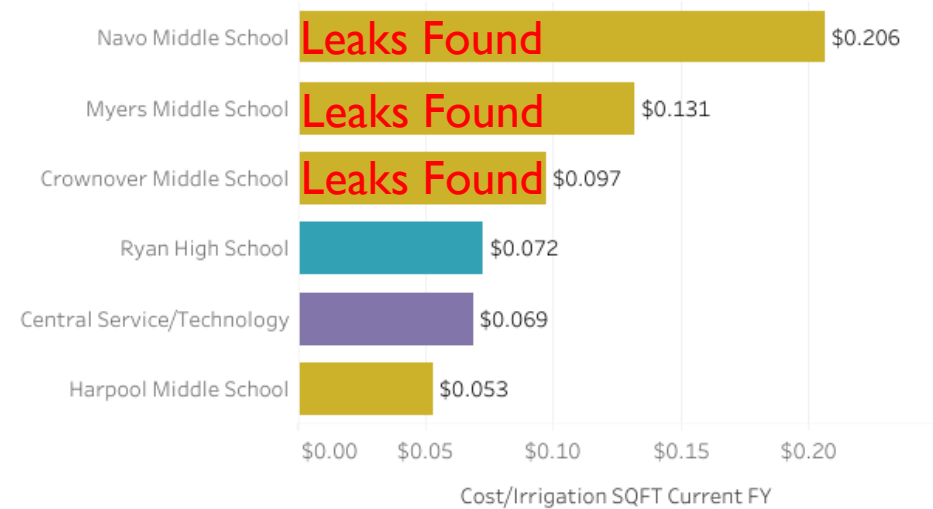
Highest % Increase in Usage



Lowest Cost per SqFt



Highest Cost per SqFt



RECENT ACCOMPLISHMENTS 6-MONTH SUMMARY

1. Bi-weekly utility audits have continued to find items as outlined in report.
 1. Items Identified: 70
 2. Items Fixed: 30
2. Energy evaluation walk at Navo Middle School.
 3. Navo is a top 10 user of all 4 utility groups and at the top of the middle school charts historically.
 4. Found the portables were running on pre COVID schedules due to disconnect from IP.

LOOKING AHEAD

1. Incorporating the solar panels at Union Park permanently into reporting.
2. Evaluating Ryan High School to ensure the new chiller systems are operating at peak efficiency and report on the savings.
3. Hold an irrigation focused work session to look for opportunities in optimizing the consumption.